

MOTOR AGE

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Number 23

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Thirty-five Cents a Copy
Three Dollars a Year

READ This — E.S.J.

NORTHWESTERN AUTOMOBILE CO.



W. E. WHEELER, Pres. AND TREAS.
WILLIAM EGGLESTON, VICE PRES.
C. A. ANDERSON, SECRETARY

DISTRIBUTORS OF
JORDAN CARS
1500 HARRON PLACE

MINNEAPOLIS



Mr. Edward S. Jordan, Pres.
Jordan Motor Car Company, Inc.,
Cleveland, Ohio.

Dear Mr. Jordan:

We received our first sample of the Little Custom Jordan several days ago. I have been waiting a few days before writing you as I wanted to get the reaction from our own organization and also find out how the car was going to take with the general buying public.

I want to say now that I consider this to be the most wonderful automobile that I have ever ridden in in my twenty-seven years in the business, and when I say this I am only expressing the opinion of our whole organization.

In performance it is 100% better than anything that was represented to us. It is truly a wonder car and I am thoroughly convinced that the entire Jordan organization; factory, distributors and dealers, are just about to enter an era of prosperity such as they have not enjoyed for a good many years.

This is an automobile we can show a man and immediately interest him. We can take him out for a demonstration and immediately convince him that we have something way beyond the ordinary. We can bring him back to the store and close him right then and there. This we have done repeatedly since receiving the new Model.

It has created a big sensation up and down the line, and we have a line of people coming in all the time. I truly believe it will be a stampede to the Jordan Line and I want to congratulate you most heartily, and urge the factory organization to speed up production to the highest possible point, because you are going to be able to sell every car you are going to be able to get out for months to come.

Very sincerely yours,
W. Wheeler, Pres. & Treas.
NORTHWESTERN AUTOMOBILE CO.

H U P M O B I L E D E A L E R S M A K E M O N E Y

Hupmobile Reliability a Factor In Oklahoma Dealer's Success



"I have been offered nearly every line of automobiles built, but have seen nothing that compares with the fairness of the Hupmobile terms to dealers."

GEORGE W. HARVILLE,
Ponca City, Okla.

Dealers or other business men interested in reports from Hupmobile dealers in their own vicinity may secure this information by writing the factory.



"The fact that Hupmobile has always built quality merchandise instead of building to a price, is largely responsible for our profitable showing in the past four years," says George W. Harville, of the Harville Motor Company, Ponca City, Oklahoma.

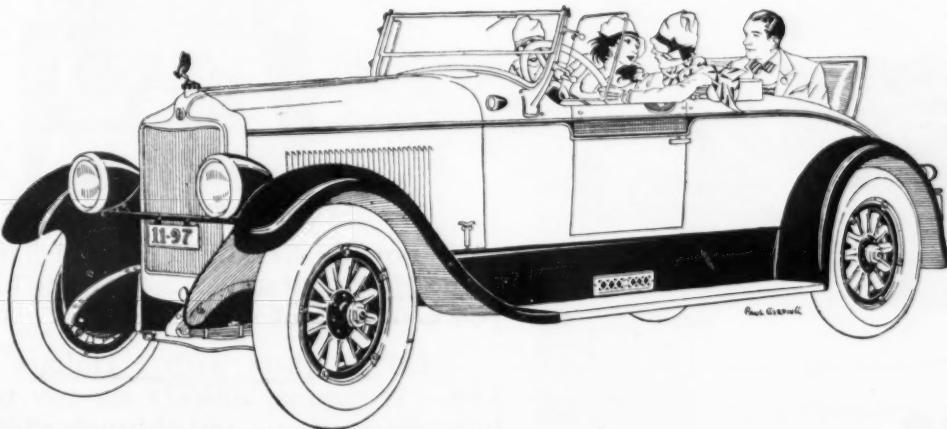
"In our first twelve months as a Hupmobile dealer, we marketed \$65,000 worth of cars. Last year our gross business totaled \$296,185. Our records show that we rarely lose a customer, once we have sold him a Hupmobile. Repeat sales run well over 90%."

Hupmobile selling policies plus a product of known worth and dependability are building substantial business for dealers in every section of the United States and Canada. It will pay you to investigate the Hupmobile opportunity in your own locality. Contract details upon request.

HUPP MOTOR CAR CORPORATION
DETROIT, MICHIGAN

H U P M O B I L E EIGHTS & SIXES

Built, Styled, Priced to Make Easy Sales and Satisfied Customers



The New Royal Roadster

A \$1,195 product unbeatable in its class

Build the right kind of product. Style it and equip it in the fashion of the day—in fact, a little ahead of the trend. Individualize it. Then price it right. Make it easy to sell. Advertise it intelligently.

Give a dealer a real 50-50 franchise. One that permits him to do business profitably for us and himself and, at the same time, maintain complete control of his own business and finances.

That in tabloid is the Moon product and the Moon contract. It will pay you to know more about them and about the way Moon and Diana business has gone ahead this spring.

MOON *Our
21st
Year*

A finance plan that lubricates the wheels of business. Write us about it.

MOON MOTOR CAR COMPANY, St. Louis, U. S. A.

*Manufacturers of Moon 6-60 and Diana Straight "8" Models Covering
Complete Price Range from \$995 to \$1,995*



Get Big Wrecking Profits with a HOLMES * 110



HOLMES AUTOMOBILE WRECKER



HOLMES TOWING EQUIPMENT



Holmes "V" Tow Bars

For towing wrecked cars suspended, the Improved Holmes "V" Bar is the latest development in towing equipment. It absolutely holds towed car in perfect alignment, and gives service car complete control over towed car. Furnished in two lengths, 36-inches to 48-inches; and 48-inches to 60-inches.

Price \$20.00 to \$22.00



Holmes Steering Gear Clamp

Holds steering gear rigid to front axle while towing car with rear end suspended from service car. Consists of duplicate clamping members with V shaped teeth arranged to grip parallel rod and a circular portion for clamping the axle, making it fit all car and truck axles. Saves use of one man.

Price \$3.00

HOLMES CANTILEVER JACK

"The One Jack for All Jobs." Lifting range from 6 to 17 inches with full 8 inch lift, handling all cars whether balloon equipped or otherwise. A new mechanical feature makes the reversing just as simple as the raising. No levers or pawls to operate. No load on handle when lowering, therefore all tendency of handle to fly back is eliminated. The maximum load is easily lowered with one hand. Simply pump handle up and down to raise and pump it up and down to lower. Stroke of handle is not limited—a whole stroke or any part may be taken regardless of position of handle.

It swings under wheels of raised car, has a frame clearance of 1 1/4 inches and its sturdy construction enables it to stand the roughest punishment.



PRICE, \$38.00

Towing Season is on and garages that are going after road service are reaping big profits. Are you getting your share?

Go get them with a Holmes Wrecker No. 110. It mounts quickly on any touring car or light truck chassis and through effective advertising it creates big profits in tow fees and repair jobs.

The Holmes No. 110 is the most powerful, practical and efficient crane type wrecker ever developed. Its tremendous leverage and four ton capacity permit it to handle the heaviest cars speedily and efficiently. The patented swivel head permits a pull from any angle and eliminates blocking traffic. It is operated entirely from the ground and by one man. The cost is small and the profits big. Get yours now.

Price, \$95.00

Order from your Jobber or write for full information.

ERNEST HOLMES COMPANY
CHATTANOOGA TENNESSEE

MOTOR AGE

Reg. U. S. Pat. Off.
Established 1899

Vol. LI

No. 23

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Don't file shims.

It's a waste of time and labor.

Avoid ordinary shims that may prove inaccurate, or difficult to handle.

Use Laminated Shims.

All you have to do is to peel off the layers.

Time saved.

Money saved.

Labor saved.

And—a much better and truer adjustment.

Your jobber sells them.

A shim for every type of engine.

Laminated Shim Co., Inc.

236—14th St., Long Island City, N. Y.

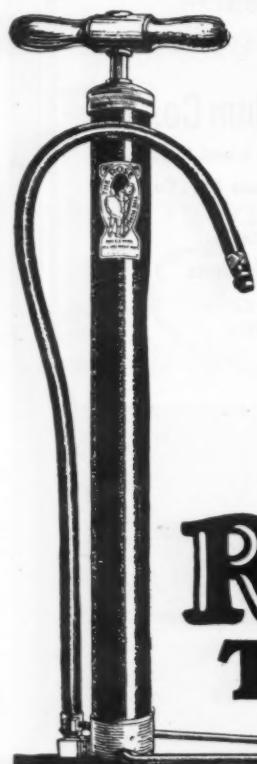
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The Tourist Our Best Summer Customer!



Pay special attention to the tourist. He is your best summer customer. He is in the "vacation" mood. He will buy NOW what he wouldn't buy at any other time. Just suggest the importance of a good tire pump—and you'll make many an extra sale.

Sell him a ROSE—the tire pump with the famous easy valve action! Pumps FASTER and EASIER. Guaranteed for 5 years of service. Gives you the greatest tire pump stock, and gives your customer the very best pump.

ORDER FROM YOUR JOBBER

ROSE *Easy
Value Action*
TIRE PUMPS

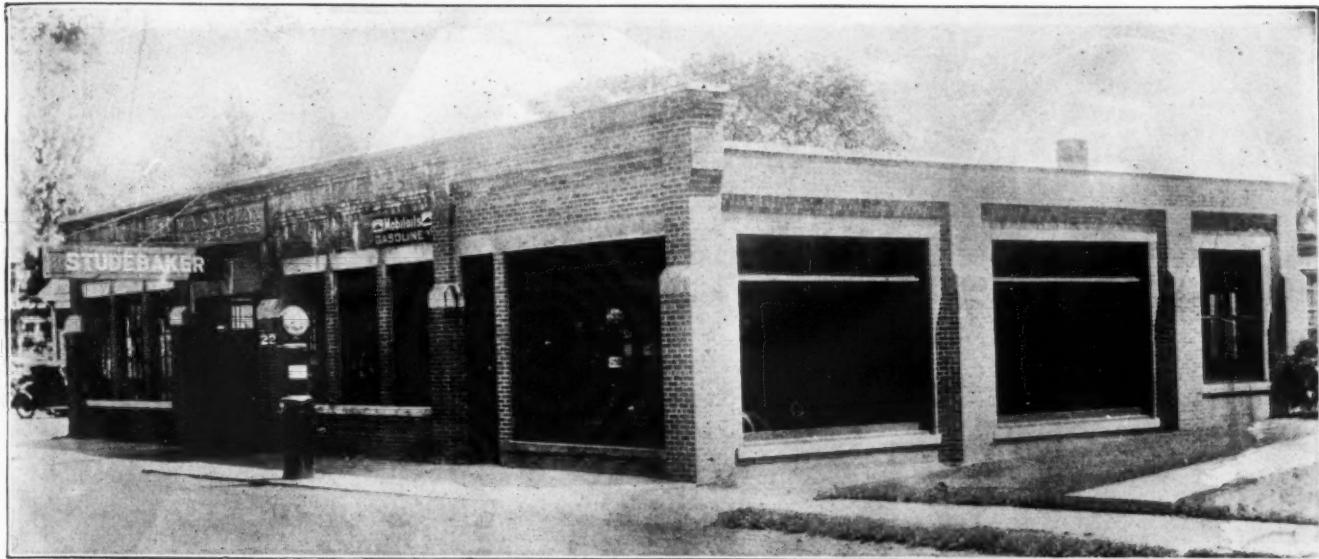
FRANK ROSE MFG. CO.—HASTINGS, NEBR.



Get Rose Awnings From Your Jobber

Here is the easy, profitable way to handle auto side awnings. Only 5 sizes fit all closed cars. No installation trouble—not a hole to bore. Slip on or off instantly. Substantially made in attractive colors. Steel rod frame holds rigidly in place. Order a stock today from your jobber.

ROSE
Automobile Side
AWNINGS



Mr. Sargent's present building, in contrast with his first "showroom" below, illustrates his growth with the Studebaker franchise

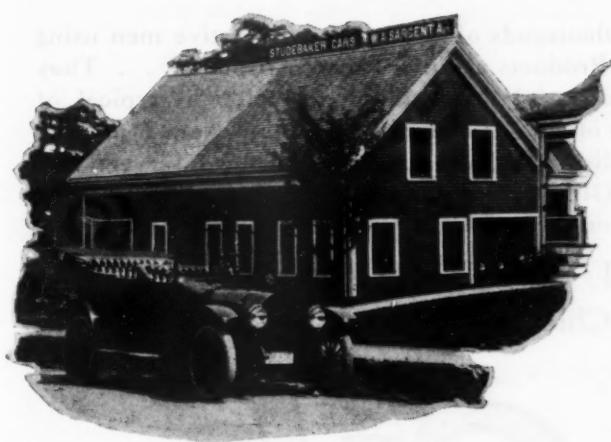
Proving that Rockland, Mass. is decidedly a Studebaker city

SEVENTEEN years ago, Walter A. Sargent became the Studebaker representative in Rockland, Massachusetts, starting business in the frame structure shown below. Soon Rockland folks

began to realize that Studebaker cars were good cars to own, for every car sold made a booster and Walter Sargent was a tireless enthusiast.

The clean-cut, modern structure which Mr. Sargent now occupies is a distinct tribute to his own energy and the sales opportunity in Studebaker and Erskine cars. This is but one of hundreds of "success stories" that may be told about Studebaker dealers.

If Studebaker is inadequately represented in your locality, or not represented at all, write us at once regarding the sales rights for your territory. Your inquiry will be held strictly confidential. Address Dept. 51, The Studebaker Corporation of America, South Bend, Indiana.



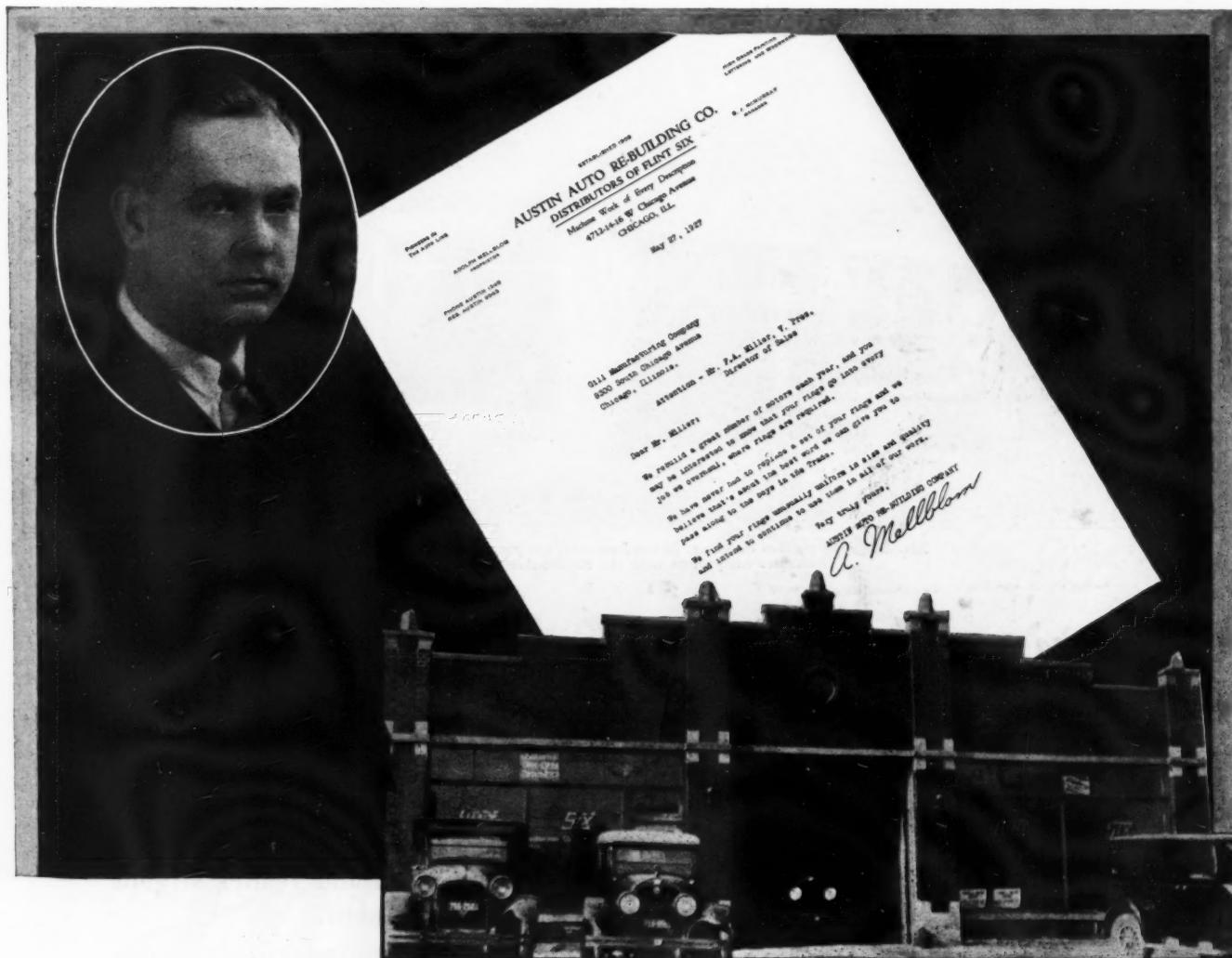
Mr. Sargent started to sell Studebaker cars here in 1910

STUDEBAKER

ERSKINE SIX

C Two franchises in one—offering cars from \$945 to \$2495





Fre

The Gillometer

Gives the flat rate charge on six popular engine repair jobs covering 76 makes and models of cars. Tells piston ring size required. Wipes out estimating losses. Sent free—regardless of what rings you use. Write for yours today.

THE thousands of America's automotive men using Gill Products are more than satisfied . . . They are enthusiastic! Mr. Mellblom's letter is typical of hundreds of similar expressions of approval. And now merchandising helps that get the business for you are part of Gill service. Your Gill jobber will gladly furnish complete details.

GILL MANUFACTURING CO.
8300 S. Chicago Ave. Chicago, Ill.

Gill

Products

Gill Interlocking Joint Rings
Servus Step-Cut Rings
Economy Oil Rings
Piston Pins
Pistons



Austrian Timken Bearings

Science is international. That is why Timken Bearings are international. Europe, with its uniformly high engineering standards, has adopted Timken Bearings on a large scale. The Austrian Fross-Bussing and other European trucks are Timken-equipped because only Timken tapered construction, *POSITIVELY ALIGNED ROLLS*, and electric steel completely protect against thrust, shock, speed, weight and torque. It is this mechanical excellence which underlies Timken prestige and the almost unanimous adoption of Timken Bearings by American commercial vehicle manufacturers.

THE TIMKEN ROLLER BEARING CO., CANTON, OHIO

T I M K E N
Tapered
ROLLER BEARINGS



Quality · Beauty · Strength

Better Dealer Profit

You make a better profit selling WEED Bumpers because it takes less time to make the sale. People know that WEED stands for quality. After the sale WEEDS stay sold by giving long and satisfactory service. You're not asked to replace broken parts after the first little bump.

Sell WEEDS for your own profit and your customers' lasting satisfaction.

WEED BUMPERS

sensible protection - fore and aft

JUN 13 '27

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MOTOR AGE

VOLUME LI

Philadelphia, Pa., June 9, 1927

NUMBER 23

Factories Hang Up New Marks in May

Oakland Tops April High by 20%—Hudson Exceeds May of 1926 by 50%

OVERLAND HITS 27,569

PHILADELPHIA, June 8—Production records were established by many companies in May according to figures now available for publication.

Oakland Motor Car Co. with an output of 24,006 ran 20 per cent above the previous high total set up in April. During the month a production schedule of more than 1000 cars daily was maintained, a goal which the company has been aiming for since the first of the year.

Output of the Studebaker Corp. of America, in May, was between 13,000 and 14,000 cars, A. R. Erskine, president, reports. Studebaker sales in the quarter will approximate 36,000 cars, he said, as against 29,000 in the second quarter last year. Operations are not at capacity but are holding up well, Mr. Erskine said.

Hudson Motor Car Co. reports a May output of 34,500 cars, more than

(Turn to page 13, please)

Fight Required for Tax Relief, A.A.A. Head Says

WASHINGTON, June 7—Demands of American motorists for repeal of the automotive war excise taxes will be carried to the floor of the Senate and House and to the constituencies of Senators and Representatives by the American Automobile Club, through its 880 affiliated motor clubs, it was announced by Thomas P. Henry, president of the A. A. A.

"Motorists might just as well understand now that they will secure no tax relief from this administration without fighting hard for it," Mr. Henry said.

Elcar Adds 38 Dealers

ELKHART, IND., June 6—What is thought to be a record was achieved recently by the Elcar Motor Co. In 45 days following the first of April, 38 new Elcar dealers were established. This record of almost a dealer a day is largely due, according to R. A. Rawson, sales manager, to the Shock-less Chassis, an Elcar feature that has aroused nation-wide interest.

New Ford to List About Same as "T"

NEW YORK, June 9—Latest advices on the new Ford model, which will make its appearance later in the year, generally confirm previously published statements in MOTOR AGE. It is understood the car will have new engine head, giving high compression; three speeds forward gear shift; slightly lengthened wheelbase, and new body lines. Price will be approximately the same as Model T.

135-in. Models Augment Willys Great Six Line

PHILADELPHIA, June 9—Three new seven-passenger models have been added to the Willys-Knight "Great-Six" line by Willys-Overland, Inc. The new models are mounted on a special 135 in. wheelbase chassis and are priced as follows: Limousine, \$2,950; sedan, \$2,850, and touring car, \$2,495.

The open model is intended primarily for the overseas market. The auxiliary folding seats are arranged closer together with wider seats and backs, giving a seating capacity for eight persons with maximum comfort. With the exception of the glass partition, the closed models follow the general design of the closed models on the 126 in. chassis.

Falcon Models Priced

DETROIT, June 7—Prices on three previously announced Falcon-Knight models have been announced by the Falcon Motors Corp. as follows: Roadster, \$1,045; coupe, \$995, and landau, \$1,145.

Make It Easy to Buy, A.E.A. Slogan

CHICAGO, June 9—"Make it easy to buy," is the new slogan of the Greater Market Development Department of the Automotive Equipment Association. These five words, according to Harry G. Moock, managing director, constitute the yardstick by which the activities of the department will be measured.

Dealers Unite in Junking Used Cars

Members of Kansas City Association Move to Take Wrecks Off Market

22 IN \$50,000 CONCERN

KANSAS CITY, MO., June 4—Worn-out used cars are soon to disappear from the streets of Kansas City and vicinity and the greatest problem which has been facing the motor car dealers for the last several years, it appears, has been solved by the startling movement instigated here by the Kansas City Motor Car Dealers Association within the last few days. Twenty-two member dealers of the association have combined forces to organize a \$50,000 corporation for the purpose of junking the worn-out motor cars now on the streets and assuring that such cars will not again be seen in use.

The corporation, the capital of which is entirely paid up by the 22 dealers, recently filed articles with the secretary of state of Missouri, under the name of the United Auto Wrecking Co. The (Turn to page 13, please)

Service Managers Will Overhaul Their Problems

CLEVELAND, June 9—"Satisfactory service to car owners has its beginning in a well-organized, properly functioning service department at the factory. Right policies and practices there are fundamental," says Harry M. Jewett, chairman of the Service Committee of the National Automobile Chamber of Commerce, announcing the Factory Service Managers Forum to be held in Cleveland, at the Hotel Statler, June 14 and 15.

Among the live problems that will be discussed are: Handling Replacements Parts Shipments; Group Bonus Payment of Mechanics; How Shop Equipment Should be Distributed; Training the Service Personnel; How the Factory Can Help the Dealer on Service; Results of Increasing Adoption of Flat Rates.

New Diana Body Models

ST. LOUIS, June 7—A new five-passenger cabriolet roadster with collapsible top has been added on the Diana straight-eight chassis by Moon Motor Car Co. The new model is priced at \$2,295.

Moskovics Lauds Stock Car Racing

Stutz President Believes it Will Do Away With Loose Speed Claims

INDIANAPOLIS, June 8—F. E. Moskovics, president of the Stutz Motor Car Co. of America, Inc., has taken the cudgels in hand in behalf of the revival of stock car racing in no uncertain terms. "A manufacturer making claims for speed and endurance of his car in public print should be held responsible for proving such claims," according to Mr. Moskovics.

"The past year has shown us many loose claims of superiority in speed," continued the same authority. "Some of our most conservative companies have made claims they were not prepared to prove. Stock car racing and speedway tests properly supervised will rectify all this."

"The place to make speed and endurance claims is on the speedway, not in public prints. The manufacturer who makes these claims and then will not risk the very claims he makes in public tests does not deserve much from a fair minded American public."

"There is much to be learned from stock car racing. Any car that will average over 68 m.p.h. for 24 hours on Indianapolis Speedway will give the owner a performance infinitely superior to that of cars that can't do it. I merely use that figure as a yardstick."

"As to what is a stock car, that question will never be answered by sitting around and talking about it. It will only be definitely fixed when a few firms, who venture to race, find out the difficulties, give and take experiences, and finally agree on a set of rules. It can be done and will be. Our own car was exactly as delivered to customers in every respect."

AC Expands Works

DETROIT, June 4—The AC Spark Plug Co. will start work immediately on a new addition to its Industrial Ave. plant in Flint. The new unit will provide employment for about 1000 more men, according to an announcement.

Rose Back with Willys

TOLEDO, June 7—John A. Rose has rejoined Willys-Overland, Inc., his duties for the present being confined to special sales work in the domestic field. Mr. Rose was long identified with the company in an export capacity and he is widely known to export executives.

Martin is Spencer Aide

NEW YORK, June 9—The appointment of P. B. Martin as assistant branch manager is announced by F. A. Spencer, manager of the Oldsmobile New York branch.

Mr. Martin has been with the Olds-



M. D. DOUGLAS



D. E. RALSTON

Mr. Douglas recently was named assistant general sales manager in charge of eastern sales of Chevrolet Motor Co., and Mr. Ralston assistant general sales manager in charge of western sales

mobile organization for more than three years, having started in May, 1924, as special factory service representative. He is a graduate of the University of Michigan and served in the U. S. Army as chief inspector of air service and motor vehicles before affiliating with Oldsmobile.

MacLean Gets Promotion

BUFFALO, June 8—A. A. MacLean, who has been connected with U. S. Light & Heat Corp. for six years as director of purchases and later as assistant to D. H. Kelly, vice-president, has been elected a vice-president of USL Battery Corp.

Pierce Chief Engineer Named

BUFFALO, June 9—John C. Talcott has been appointed chief engineer of Pierce-Arrow Motor Car Co., succeeding the late Charles Sheppy. He has been associated with the Pierce-Arrow company since his graduation from Cornell University in 1909.

Erskine Wins Medal in Reliability Run

NEW YORK, June 8—An Erskine stock sedan has been awarded the gold medal in the classic London to Land's End reliability run recently held in England, according to a cable received in this country by the Studebaker Corp. of America. The run was over a distance of 317½ miles, including a wide variety of road conditions and four difficult hills.

Foster and Ralls Go on Trip

NEW YORK, June 4—Claude H. Foster, chairman of the board of directors, and George H. Ralls, president of Gabriel Snubber Mfg. Co., sailed last week on an extended business trip through Europe. They plan to be gone about six weeks during which time they will visit Turin, Italy, where Fiat has taken delivery of 10,000 sets of snubbers during 1927 and have just placed an additional order for a like amount.

Claude Douthit Heads Indian

SPRINGFIELD, MASS., June 4—Claude Douthit has been elected president of Indian Motorcycle Co. and Louis E. Bauer is named chairman of the executive committee and director in active charge of management. Mr. Douthit, who succeeds Frank J. Weschler, has been a director of the company for several years and is one of the largest individual holders of stock.

Lincoln Chooses Wade

CLEVELAND, June 6—The Lincoln Electric Co. of Cleveland announces the appointment of the Wade Engineering Co., 1855 Industrial St., Los Angeles, as distributor of Lincoln products in California. This company maintains a branch at 69 Webster St., Oakland, Cal.

Krueger, Inventor, Dies

MILWAUKEE, June 4—Harry F. Krueger, said to have originated the idea of putting steering gears on the left side of automobiles, died here this week. Mr. Krueger built a car called the Eclipse in 1903 which had left-hand drive and is believed to have been the first so equipped.

No Tax Rebate for Loss on Trade-in

Bureau of Internal Revenue Ruling Recognizes No Allowance

WASHINGTON, June 7—No loss for purposes of taxation is recognized from the trading in of trucks and passenger cars used for business purposes on new trucks and passenger cars to be used for like purposes, according to a ruling just issued by the Bureau of Internal Revenue. The text of the ruling, numbered I. T. 2356, follows:

"Advice is requested relative to the allowance of a loss in respect of automobiles traded in on new automobiles in the case of the M Company.

"The taxpayer during the year 1922 traded in three trucks and three passenger cars, all used for business purposes, for new trucks and passenger cars to be used for like purposes. The trade-in value was 7x dollars less than the depreciated cost as at the date of the exchange. In 1923 two cars were traded in at a trade-in value of x dollars less than the depreciated cost. The taxpayer deducted these amounts as a loss in computing net income for 1922 and 1923.

"The automobiles in respect of which the taxpayer claimed a deductible loss were used for business purposes, and, therefore, were held for 'productive use in trade or business' within the meaning of section 202 (c) of the Revenue Act of 1921. They were 'exchanged for property of a like kind or use' within the purview of such statute. Consequently, no loss is recognized from the exchange."

Merseles is Manville Head

NEW YORK, June 9—Theodore F. Merseles, president of Montgomery Ward & Co., has been named president of the Johns-Manville Corp. and will take office July 1. H. E. Manville, now president, will become chairman of the board at that time.

Mr. Merseles, George Whitney and Francis D. Bartow, the latter members of the firm of J. P. Morgan Co., have been elected directors.

Dealers Hear Lubeck

LOS ANGELES, June 4—E. M. Lubeck, western sales manager of the Oakland Motor Car Co., was the principal speaker at a meeting of Oakland-Pontiac dealers from all over southern California held at the Biltmore Hotel recently. Mr. Lubeck described the development plans for Oakland and Pontiac sales.

Reeves Sails for Europe

NEW YORK, June 8—Alfred Reeves, general manager of the National Automobile Chamber of Commerce, sailed

Franklin Observes Its Silver Jubilee

SYRACUSE, June 4—The Franklin Automobile Co. this week celebrated its silver jubilee. Twenty-five years ago, on June 2, 1902, the first Franklin automobile was sold. The buyer was S. G. Averell of New York City. This first production of the air-cooled Franklin was also the start of four-cylinder construction, all other cars up to that time being of the one or two-cylinder type.

for Europe today. Roy D. Chapin, president of the Chamber, and Windsor T. White, chairman of the Motor Truck Committee, will sail June 10, while John N. Willys, secretary of the Foreign Trade Committee, will follow later. All are going to attend the meeting of the Bureau Permanent des Constructeurs d'Automobiles, Paris, June 27-July 2.

Ayres on N.A.F.C. Staff

CHICAGO, June 4—Milan V. Ayres, economist and analyst, has been added to the staff of the National Association of Finance Companies of which C. C. Hanch is general manager.

Mr. Ayres was on the program of the 1926 convention of the association, having presented a paper on "Installment Selling and Its Financing," and since that time has done some work for the association in connection with analysis of pending legislation.

Lincoln Sales Top Quota

CHICAGO, June 4—Shock absorber sales by the Lincoln Products Co. of Chicago for the first four months of this year are substantially ahead of the previously established quota, according to E. C. Guthard, president.

N. A. C. C. Silent on Windsor Plan

Conducts Discussion But Withholds Opinion—All Officers Reelected

NEW YORK, June 3—The Windsor used plan was discussed for several hours at the members' meeting of the National Automobile Chamber of Commerce here yesterday, but as no vote or other action was taken on the subject the manufacturers, as a group, are committed neither for nor against it.

The directors whose terms expired were reelected and at a later meeting of the board all officers, headed by Roy D. Chapin as president, were also reelected. The directors who were again returned by the membership were A. J. Brosseau, Mack Trucks, Inc.; A. R. Erskine, Studebaker Corp. of America; Alvan Macauley, Packard Motor Car Co.; William E. Metzger, Federal Motor Truck Co. and R. E. Olds, Reo Motor Car Co.

The members voted to join with the Society of Automotive Engineers and the Bureau of Standards in a program of research intended to develop the best type of headlight for motor vehicles.

Some opposition to the Windsor plan developed during the discussion. A large number of members expressed their views pro and con after Floyd Allen, General Motors Corp. and others had made favorable presentations. C. A. Vane, general manager, National Automobile Dealers Association, said he did not feel that one in his position should express approval or disapproval of the plan at this time, but he did say, stressing a point frequently brought out in the discussion, "that no one plan could be considered a panacea for the used car problem." Other important points, he said, were overproduction of cars, especially of certain models, and frequent model changes.



This picture furnishes two interesting contrasts. The first is that of the pioneer car built by Ford and his recent fifteen millionth Model T. The second is that of Henry Ford who invented and popularized this same Model T, and his son, Edsel Ford, who succeeded his father as president and whose task it will be to make the coming new Ford a success

Seattle Trade Has Eyes on Used Cars

Sales Campaigns and Organizations Are Moves to Cope With Problem

SEATTLE, June 6—Spring has prompted distributors and dealers to give more attention to used-car merchandising than in past years, with emphasis on scientific used-car sales campaigns. One dealer has opened an annex where he carries good used cars priced from \$50 to \$250, all in good running condition. Each buyer is given a certificate entitling him to eight hours of job work free within 80 days.

Jack Thornton has been elected president of the Seattle Used-Car Managers Association. He is used-car department manager for Oldsmobile Co. of Washington, and has been in the Seattle trade 16 years, active most of the time in used-car selling.

Bonded Used-Car Dealers Association is a new organization formed in Seattle, already including 11 companies which sell used cars exclusively. Earl H. Gallagher is president and V. P. Fleschman secretary-treasurer. They are bonded through a reputable bonding house, and to each used-car buyer they gave a certificate guaranteeing the car as in good operating condition.

Stearns-Knight Prices Increased \$100 to \$400

CLEVELAND, June 9—Increases ranging from \$100 to \$400 have been made by the F. B. Stearns Co. in the Stearns-Knight models as follows:

	New Price	Old Price	Change
F6-85			
Cabriolet (4-p.)	\$3,550	\$3,450	\$100
Coupe (4-p.)	3,450	3,350	100
Std. Sedan (5-p.)	3,450	3,350	100
Std. Sedan Lim. (5-p.)	3,700	3,550	150
Sedan (7-p.)	3,750	3,550	200
Sedan Lim. (7-p.)	3,950	3,750	200
G8-85			
Roadster (4-p.)	3,950	3,850	100
Touring (4-p.)	3,950	3,850	100
Cabriolet (4-p.)	4,550	4,250	300
Coupe (4-p.)	4,550	4,250	300
Sedan (5-p.)	4,650	4,350	300
Sedan Lim. (5-p.)	4,950	4,550	400
Sedan (7-p.)	4,750	4,450	300
Sedan Lim. (7-p.)	4,950	4,650	300

New body models added to the F6-85 are five-passenger custom sedan at \$3,350 and five-passenger custom sedan limousine at \$3,700.

Nash Orders Jump 20%

KENOSHA, WIS., June 7—Nash Motors Co. orders on the books the first of June were 20 per cent greater than a year ago, according to E. H. McCarty, general sales manager. The demand is especially heavy for the new Advanced Six coupe and the Special Six cabriolet, Mr. McCarty said.

Salesology

Believe in what you sell.
" " " tell.
Your story must ring true.
If you can't be sold by your product,
Then it can't be sold
by you ~



Milwaukee Group to Try Wrecking

Dealer Association Starts Constructive Expansion—Ruddle Executive Counsel

MILWAUKEE, June 6—Bart J. Ruddle, for the past 17 years executive secretary of the Milwaukee Automotive Dealers Association and manager of all automobile shows held under the dealers' sanction, became executive counsel to the association on June 1, and Frank A. Cannon, for 10 years with the Good Roads Association of Wisconsin and an outstanding leader in highway affairs in the United States, stepped into the office of executive secretary.

Mr. Ruddle will be recalled as the organizer of the National Automobile Dealers Association in 1917, and served as secretary during the regime of George W. Browne, and part of the term of F. W. A. Vesper. He was succeeded in this work by Harry G. Mook.

It is planned, among the activities of the dealers organization, to bring about the consolidation under one roof of all automotive agencies in the city, including the Auto Trade Salvage Corp., the auto show headquarters and the office of the Windsor plan Used-Car Market Report and Buyer's Guide.

The Auto Trade Salvage Corp., in which every automobile dealer in Milwaukee is expected to be a stockholder and patron will eradicate one of the abuses of the industry. At present, obsolete cars are disposed of to junk dealers for a very small compensation by dealers. These cars, if in any sort of running order, are resold to the public at three, four and five times the price paid for them as junk. It is to discontinue this practice that the Auto Trade Salvage Corp. has been organized by members and non-members of this association, and, after it is put into operation, obsolete and worn-out and orphaned cars for which there are no parts will be sent to the scrap heap.

May Car Shipments Hold to High Rate

NEW YORK, June 4—Continuation of a remarkably high production rate by National Automobile Chamber of Commerce members is indicated by the preliminary estimate of May shipments, which gives a total for the month of 342,082, against 342,819 in April. May, 1926, shipments were 289,571 so there was an 18 per cent gain last month over the corresponding period a year ago.

For five months of 1927 the members shipped 1,454,673 vehicles, a gain of 138,780 units or 10.5 per cent over the corresponding period of 1926.

New Olds Retail Store

NEW YORK, June 9—In line with its progressive expansion policy, Olds Motor Works has opened in New York City a new Oldsmobile retail store and showroom in the General Motors Bldg., 1773 Broadway at Columbus Circle. Earl L. Coons has been appointed metropolitan district manager.

McFarlan Boosts Prices

CONNERSVILLE, IND., June 9—The following price increases have been made by the McFarlan Motor Corp. in its straight-eight line:

Model	New Price	Old Price	Change
Touring (5-p.)	\$3,180	\$2,650	\$530
Sedan (7-p.)	3,680	3,280	400
Sub. Sedan (7-p.)	3,780	3,480	300

Dealers Unite in Junking Used Cars

Kansas City Association Members Aim to Rid Selves of Trade-in Evil

(Continued from page 9)

articles have been approved by the state and permission has been granted to issue 250 shares of no-par value common stock and 250 shares, preferred, of \$100 par value per share. The corporation already has cash in hand amounting to \$50,000. It was approved by the secretary of state on May 24.

The new organization has taken a lease on a tract of ground formerly occupied by a lumber yard, at Nineteenth and Troost Ave., at an annual rental of \$5,000. Included in the tract are switching facilities and a number of buildings.

According to Mr. Bond, only the most modern wrecking equipment obtainable will be installed. When the plant has been fully equipped, it is expected a motor car may be totally juked within the space of a few minutes.

Tom Shugrue Manager

Tom H. Shugrue has been appointed manager of the concern, which is expected to be open for business during the present week. It is estimated by Mr. Bond that an average of 5000 motor cars will be juked annually.

Although announcement of the dealers' juking corporation came as a complete surprise locally, its organization was accomplished only after a long and careful survey had been carried out by the dealer association here and in the immediate vicinity. It was found that the 41 wrecking companies here have been obtaining 85 per cent of all their purchases from the motor dealers of this city, and that 40 per cent of these eventually came back to the dealer in trade. Some of the wrecks are said to have returned to the dealer several times, and one such car on which the association had held a check was found to return to the same dealer in seven distinct deals on trade. It had originally been sold to the wrecking company as junk, yet it had been patched up and put back on the streets and was traded in seven times.

See New Car Market Broadened

Beside the fact that the United Auto Wrecking Corp. should in itself be profitable, the dealers' association estimates that its existence will necessarily increase the sales volume of new cars in this territory by approximately 5000 annually.

Mr. Bond said this week that everything in connection with the beginning of operation of the new company is consummated and its members have only to call a directors' meeting and elect officers before operation is to begin in earnest.

Chevrolet Projects Plant Improvement

DETROIT, June 7—The Chevrolet Motor Co. will make improvements to its main plant in Flint costing approximately \$2,000,000. A new main office will be built at Chevrolet Ave. and Bluff St. It will be of brick and concrete, three stories high and 260 x 60 ft. A parts building, three stories high and 530 x 122 ft. will also be built.

When these two new units are completed the present office and parts buildings will be dismantled to make way for a new manufacturing unit. According to Charles F. Barth, vice-president in charge of manufacture, who made the announcements, Chevrolet's production continues to run at 4500 cars a day.

Car Makers Set New May Marks

(Continued from page 9)

50 per cent in excess of the May, 1926, figure of 22,000.

With Willys-Overland production reaching 27,569 cars in May, the Toledo manufacturer established the highest May production mark in the history of the organization, a gain of 64.8 per cent over the same month of last year. For the first five months of the year, Willys-Overland's production of 108,788 cars set a record over all other years for the same period. Compared to the production of 84,760 cars in the same months of 1926, the current year to date shows an increase of 28 per cent.

Paige-Detroit Motor Car Co. reports May shipments of 1507 as against 2819 in April. Shipments in May last year were 3201 Paige cars and 1708 Jewett. The June schedule is for 3000 cars.

Pierce-Arrow Motor Car Co. reports May shipments 12 per cent larger than for April and 15 per cent larger than in May last year.

White Co. Appoints Six New Branch Managers

CLEVELAND, June 8—New managers for six district and branch offices have been appointed by the White Co. R. W. Moore, branch manager at Oakland, Cal., is promoted to district manager at Portland, Ore., succeeding C. B. Lynn, resigned. R. M. Miller, salesman at Oakland, is new branch manager there. Sidney S. Warner has been named district manager at Toledo, and W. J. Miller is named manager at Harrisburg, Pa., B. H. Crowder, formerly of Seattle, is now sales manager at the Pittsburgh office.

Used-Car Stocks Drop During May

New-Car Inventories Fail to Share Decline—Output Being Curtailed

NEW YORK, June 8—Sales and production conditions in the automobile industry are so spotty that it is difficult to arrive at an average for the whole business. While the general level is undoubtedly around 10 per cent under that of a year ago, and while the trend is seasonally downward, these factors have not prevented a few of the outstanding companies from maintaining output at or near record high levels.

With Ford out of production, except of parts, for this month at least, the production total for the industry will show a sharp drop. Several of the producers who customarily introduce model changes in the summer have already started preparations, which will also influence the total. The changes are being made rather earlier than has been the custom.

Sales have held up very well in the eastern and far western states, the Middle West and South contributing most of the losses. Used-car stocks have been lowered, with considerable benefit to the retail end of the business, but new car stocks have not shown the curtailment expected at this time and in some important lines the need for a cleaning up process is becoming recognized.

Sport Phaeton is LaSalle Addition

DETROIT, June 9—The addition of a four-passenger sport phaeton to the LaSalle line has just been announced by the Cadillac Motor Car Co.

While retaining the characteristic lines of other LaSalle models, this new body type introduces a number of distinctive features. Among these is a special coach-built cowl extending over the tonneau. This, in combination with a folding rear windshield, gives the occupants of the rear seat the utmost protection from the weather. This rear windshield, like the front one, may be folded forward into the horizontal position.

Both front and rear seats are fitted with deeply upholstered folding arm rests. The upholstering is in leather of a tone to blend well with the color scheme selected.

Working in well with the distinctive design are such features as sweeping front fenders with deep extra wheel wells and also spot light on a nickel plated standard secured to the right running board.

Peerless Sets New Sales Mark in May

CLEVELAND, June 6—Peerless Motor Car Corp. set a new record in May when 1700 cars were sold. The factory reports daily production is now well above 100 cars, with sales orders far in advance of production. "Never has the future of Peerless been so bright as it is at present," said Edward Ver Linden, president. Our production schedule for the balance of the year is by far the greatest in the company's history. The public reception of the new Six-60 models has been truly remarkable.

"Last year was a record for Peerless, but 1927 bids fair to surpass our fondest expectations for increase."

"That the company is in a strong financial position is shown by the fact that May ended with more than \$3,000,000 on hand in cash, sight drafts and government bonds."

Tyree Consolidates Its Activity in Bloomington

BLOOMINGTON, ILL., June 6—D. W. Lake, recently manager of the Chicago branch of the Tyree Auto Radiator Co., has been transferred to the main factory here as manager, the Chicago branch being closed and consolidated with the Bloomington concern. Company officials believe this move will mark turn in the affairs of the Tyree company through reduction of the factory's overhead and concentration of supervisory forces. W. W. Witmer has been acting manager of the local plant since the resignation of Mr. Tyree, head of the firm.

Machinery and stock will be transferred here immediately from the Chicago plant and many of the Chicago radiator experts, who have been with the Tyree company in that city, will come here to join the local force. This policy, those in touch with the com-

Establishes Rare Trade-in Record

DETROIT, June 8—An unusual record has been set by the Simpson-Reid Motor Co., of Grand Junction, Col., Chrysler distributor.

During the three years this company has been in business it has sold 415 Chrysler cars and only one of its purchasers has ever traded a Chrysler in on any other make of car.

The one exception, they claim, wanted a second Chrysler but his mind was set on having a certain body type and when he found he could not get it in a Chrysler as soon as he needed it he reluctantly decided to buy another make of car.

pany's affairs believe, will solve its problems and open the field to a development and establishment of the concern in the automotive parts field.

Auburn Touches High Daily Figure of 112

AUBURN, IND., June 9—Production of 112 cars on May 25 marked the high day in Auburn operations. The average daily production for several months has been about 100 cars, but the introduction of more efficient factory methods is permitting this to be stepped up and the demand increases.

Acme Auto Has New Name

CINCINNATI, June 7—Owing to cramped quarters and increasing business, the Acme Auto Radiator Works, formerly of 1418 E. Eighth St., has moved to 1229 Walnut St. The name of the company has been changed to the Meyer Wolf Repair Co.



Ty Cobb, of the Athletics, is registering a smile that ordinarily is reserved for home runs. But the reason for it is ample. Said reason is the LaSalle car against which he is draped. It was given to him by the admirers he won during his many years with the Detroit Tigers.

Jordan Hangs Up Shipment Record

CLEVELAND, June 9—The Jordan Motor Car Co. set a new May record for the 11 years the company has been in business. Shipments were nearly double May, 1926, and three times those of May, 1925.

Only three months in the last 11 years have exceeded May, this year, and only by the narrowest margin, according to Edward S. Jordan.

He also stated that the sale of the eights at the new low prices is extremely gratifying. With orders for the standard eight-cylinder line assure capacity production for some time to come.

Continental Makes 54% Gain in June Schedules

DETROIT, June 8—Continental Motors Corp. has schedules for 29,965 motors in June, against 19,413 for June, last year, a gain of 54 per cent. The June schedule is the greatest in Continental's history and follows a gain of 37.2 per cent enjoyed in May and 34 per cent in April, compared with corresponding periods last year.

With the corporation reaching the highest rate of output in its entire history and just beginning to realize on some of the long-time contracts which were signed with four major producers recently, the outlook indicates a most satisfactory last half.

AC Branch for Southeast

ATLANTA, June 7—The automotive trades in the Southeast have been advised of the opening of a new southern sales branch at 228 Hurt Bldg., Atlanta, by the AC Spark Plug Co., for distribution in the group of southeastern states of the AC line of spark plugs, speedometers, etc. A. S. Holmer is named district manager in charge of the branch.

Norwalk Tire Shows Loss

NEW YORK, June 4—Norwalk Tire & Rubber Co. reports for quarter ended March 31, 1927, net loss of \$46,953 after expenses, depreciation, discounts, etc., comparing with net loss of \$63,895 in preceding quarter. Net loss for six months ended March 31 totaled \$110,848 after the above charges.

Drennon & Zahn Named

ATLANTA, June 9—Drennon & Zahn, 449 Marietta St., Atlanta, distributor of motor truck parts and equipment, has advised the Georgia trade that the company was recently appointed distributor in Georgia by the Detroit Steel Products Co., of Detroit, manufacturer of automobile springs.

Reo Designates Peake

PENSACOLA, FLA., June 7—E. W. Peake has been appointed a distributor by the Reo Motor Car Co.

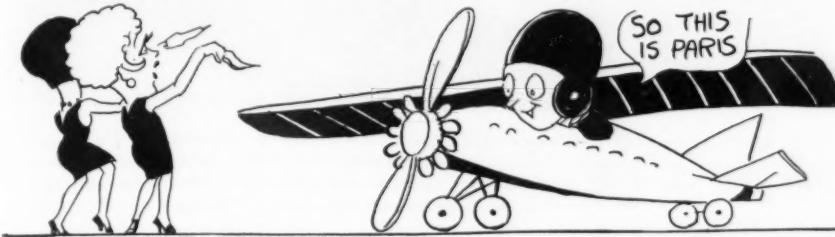
CLOSE UPS AND LOW DOWNS

By Sam U. L. Sparks

I DON'T want to take none of "Lucky" Lindbergh's glory away from him, but whilst others are claiming it was them which made it possible for him to express those memorable words, "So this is Paris," I have got to admit that the reason he got there is because he has got the same motto which brought yours truly years ago into the limelight of successful bus salesmanship, namely, "Nothing comes to him which waits."

And that reminds me of the time I sold a bus to Hezekiah Hardwick, while none of my contemporaries even reckoned him as a prospect. "The best salesman in the world couldn't sell that cuckoo a bus," says one of the boys, and I decide to show him that he could.

Hardwick lived a couple miles out in the country, and I found him setting on



the porch reading the paper and resting off a hearty dinner. I pulled up alongside the porch and for a couple minutes we chewed the rag about this and that. Finally, I invite him to take a ride.

"Ain't thinkin' o' buyin' a automobile," says he, and when I tell him I just want to give him a little ride while he's resting, he says he ain't got time—gotta get back to work.

"You can give me ten minutes of your time, can't you, Mr. Hardwick?" says I, and he allowed if I put it that way, he could.

Well, when we got to the big hill down near Weston he told me I better get a good start or I couldn't make it. So, in the stead of making a run for it, when I got to the start of the hill I stop and light a cigarette, and from a standing start the Halfpast Six went over the top at 45 miles.

Ever hear of this here "physiology of salesmanship?" Some day I'll explain it to you, but anyhow, I used a little of it on old man Hardwick when we got back to his farm.

"Likely looking lad you got there," says I when I seen his son, "Must be a big help to you."

I knew he wasn't, but I let Hardwick tell me that the lad's hankering to get a job in the city.

"Must be just about the age of Dan Matthews' boy," says I.

"Ain't seen Dan's boy for quite a spell," says he, "but he must be about as old as my John."

"Yes," says I, "I see him once or twice a week when he drives to town to see the movies or go sparkling around as boys will do. Last time I see Dan he tells me the lad is doing most all the work on the farm and he's thinking of turning it over to him. Dan's got the right idea about letting the boy go to town a couple times a week."

"He drive one of them Halfpast Sixes?" Hardwick wants to know.

"Yes," says I. "If you had a car, where would you keep it?"



"I reckon I'd take the old spring wagon outa that there shed and keep it there," says he.

Well, I tell the boy to pull the wagon out and I drive the Halfpast Six in. "She fits fine," says I, and a queer look comes over Hardwick's face.

"Looks like I had bought a car," says he.

"Looks that way," says I, and half a hour later when one of the boys drove out and picked me up I had a couple hundred in cash in my pocket, and a note for the balance.

"Lucky guy!" says he. And that's what they said about Lindbergh, but it wasn't no rabbit's foot that took him to Paris. It was guts!

N.S.P.A. Summer Meeting June 20

DETROIT, June 7—The National Standard Parts Association will hold its mid-summer meeting of its membership committee and merchandising committee at the Hollenback hotel, Cleveland, Monday, June 20, followed by an all-day meeting of the board of directors on June 21.

The Cleveland meeting is to give the executives an opportunity to make a survey of the show facilities preparatory to making final arrangements for the N.S.P.A. show which will be held in the Cleveland auditorium the week of Nov. 14.

The N.S.P.A. has 20 new applications for membership to be considered at the Cleveland meeting. It now has a membership of 120 jobbers and 111 manufacturers.

Pan-American Delegates Are Tendered Farewell

NEW YORK, June 6—A farewell luncheon to the Pan-American Commercial Congress delegates was given last week by the National Automobile Chamber of Commerce. John N. Willys, chairman of the association's foreign trade committee, addressed the delegates and short talks were given by Stephen James, of the Highway Education Board, and by Frederico Adolphus Pezet, former Peruvian ambassador to the United States.

Overland Names Duffield

DES MOINES, IOWA, June 4—George Duffield, president of the Duffield Motor Co., has announced appointment of his company as distributor for the Willys-Knight and Whippet car in Polk and surrounding counties. A. J. Knapp, for many years secretary and manager of the Iowa Automotive Dealers Association, will join the Duffield firm as wholesale manager. V. W. Hinton, sales manager and general manager for many years, will continue in that capacity.

Three More Take on Falcon

SEATTLE, June 7—Three new dealers in western Washington, all of whom are handling the Falcon-Knight from T. A. Davis & Son, distributor, are Nichols Motor Co., Bellingham, Wash., headed by E. H. Nichols, brother of the president of the Falcon Motors Corp.; Diffley Motor Co., Everett, Wash., and the Sauve Motor Co., Aberdeen, Wash.

Hall Motor Makes Change

DENVER, June 6—The Hall Motor Co., formerly of 2725 W. Twenty-ninth Ave., has moved into new quarters at Federal Boulevard and W. Forty-fourth. This firm sells Oakland-Pontiac cars, and the new quarters will afford ample facilities for sales, repair and maintenance service.

Paige Dealers Get Graham Intentions

Purchase Not Mere Move on Merger Checkerboard, Factory Officials Declare

CINCINNATI, June 7—Plans outlined at the factory for a vigorous sales campaign to follow immediately upon the assumption by the Graham brothers of active control of the Paige Detroit Motor Car Co. were revealed to Paige-Jewett dealers, operating under the H & T Auto Co., distributor for this territory, at a dealer convention here. The H & T company covers southern Ohio, southeastern Indiana, northwestern West Virginia and northern Kentucky. Forty-five dealers participated in the convention.

Following luncheon at the Cincinnati Club, Friday, C. B. Gaunt, factory sales manager, delivered the message from Vice-President Krohn and other factory executives, in which the dealers were told the new owners selected the Paige-Jewett organization as outstanding in the possibilities for development into leadership in the motor car field. Mr. Gaunt declared the Grahams were actuated solely by their love of the automobile business and were determined to enter wholeheartedly into the effort to place Paige products in the forefront.

It was made clear that the purchase of Paige control was in no sense a move on the consolidation or merger checkerboard.

Phil J. Trounstine followed with an optimistic review of Paige-Jewett business locally and predicted even greater strides under the new management.

21 American Makes Are Entered in Paris Salon

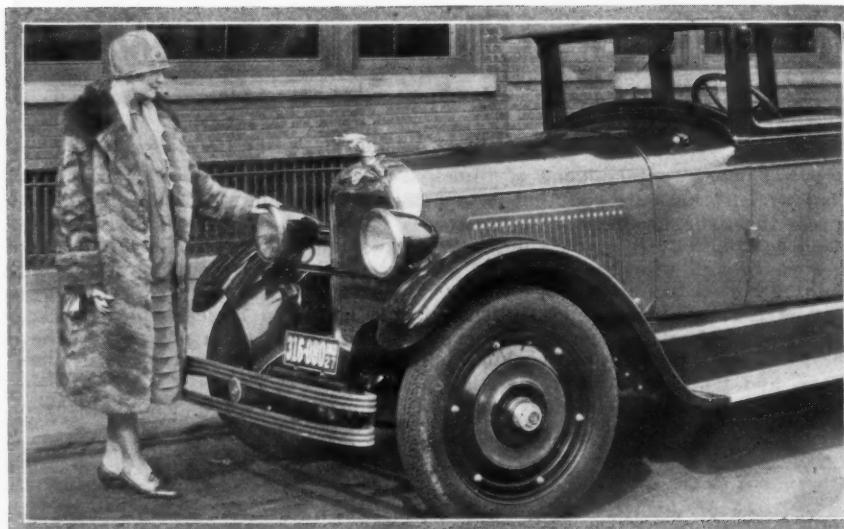
WASHINGTON, June 7—Twenty-one makes of American automobiles have been entered in the annual international salon of Paris, Oct. 6 to 16, the U. S. Department of Commerce has been informed. For the international truck show, however, only two American makes have been entered.

Trindl Corp. Expands

CHICAGO, June 7—Announcement has been made by the Trindl Co. of Chicago, manufacturer of piston pins, valves, piston pin lock screws, spring and tie rod bolts, that the name of the firm has recently been changed to the Trindl Corp. The corporation now has capital stock amounting to \$1,250,000.

Uses Plant for Storage

NEW YORK, June 8—The Long Island City plant acquired by Ford Motor Co. from Durant Motors, Inc., will be used as a warehouse for new Ford cars, it was learned here today. Only one floor will be required for storage.



Look again. The lady is a successful Studebaker dealer at Lynchburg, Va. She is Mrs. Mary C. Alexander. Despite her arduous work, Mrs. Alexander devotes much of her time to her other interest in life—her children. She has a son, 13, and daughter, 11, and enjoys herself most at home

purposes, however, and plans for utilization of the remainder of the plant are unknown.

Splitdorf Elects Ross

NEW YORK, June 7—Donald Ross has been elected vice-president in charge of finances of the Splitdorf-Bethlehem Electrical Co. Mr. Ross is widely known among financial men, serving as one of the assistants to the late H. P. Davison in the conduct of the Red Cross during the war.

Cleveland May Sales Fall

CLEVELAND, June 6—Final figures in the automotive field for May show new car sales under sales for last May, actual numbers being 4549 sales this May against 5338 in 1926. Used cars total 13,047 for this May against 14,427 of May, 1926.

New Automotive Literature

Motor Car and Coach Painting

The subject of motor car finishing and refinishing is most thoroughly dealt with in a new volume entitled "Motor Car and Coach Painting for Private, Commercial and Mass Output," by Charles E. Oliver.

This is the second edition of this book and contains a special chapter on painting with nitro-cellulose products. An idea of the completeness of this volume can be had when it is realized that this book goes all the way from the preparation of the surface to the actual lay-out of plants that turn out as high as 150 finished cars a week. Color cards and sample sheets of different grades of abrasive papers are included. Anyone concerned with the finishing of new cars, or the refinishing of old cars, would do well to give this volume close study.

Manville Nets Profit of \$4,272,227 in 1926

NEW YORK, June 6—Consolidated net earnings of Johns-Manville, Inc., in 1926 were \$4,272,227 before Federal taxes, according to a statement issued following the sale of stock to J. P. Morgan & Co. This is the first statement that the company has issued.

The balance sheet shows current assets of \$15,708,589 and current liabilities, \$3,271,400. Total assets amount to \$35,270,616. The property account is carried at \$16,680,530.

Ajax Electric Formed

KALAMAZOO, MICH., June 7—The Ajax Electric Co. of Kalamazoo is a new concern organized by G. H. Allen and H. H. Levene. This company will manufacture a line of high-grade electrical test equipment, including growers, test stands, coil testers, etc.

All Ajax equipment has been designed by G. H. Allen personally, who has had a very wide experience in the field and was formerly president of the Allen Electric Manufacturing Co. of Detroit. He is, likewise, president of this new company.

The Ajax Electric Co. will market its products exclusively through electrical distributors and automotive jobbers.

Take Over Lambert Tire

AKRON, June 4—An Ohio corporation, headed by George Seiberling, J. P. Seiberling and J. W. Coyle, has taken over the Lambert Tire & Rubber Co., formerly an Arizona corporation.

Rockvam is Retail Chief

SIOUX FALLS, S. D., June 6—Arnold Rockvam has been appointed manager of retail sales for the Sioux Falls Motor Co., retailer of Oldsmobile cars. J. A. Crowley is president.

A. E. A. Puts Spurs to Summer Sales

Poster in Eight Colors Brings Motoring Needs to Notice of Public

CHICAGO, June 9—A large poster in eight colors has been prepared by the Greater Market Development Department of the Automotive Equipment Association for use in promoting summer sales of automotive accessories, supplies and service.

Depicting a happy party of motor tourists approaching a bathing beach, the poster calls attention to the equipment used on the car to add to its utility and increase the enjoyment of the passengers. A legend across the top of the picture says: "Drive your car on every trip," and another at the bottom reads: "Let us provide the things you need." Across the bottom of the poster is this advice: "Before you start we'll test your motor and brakes and make sure that all equipment is properly adjusted."

On either side of the picture is listed the equipment that the motorist should have before starting on a vacation trip. This equipment is listed under headings: For Greater Safety; For Greater Comfort; For Greater Convenience, and For Emergencies.

A four-page folder for distribution to dealers also has been prepared, giving pointers on how the dealer may utilize this campaign to increase his sales through the vacation season.

This poster campaign is the first definite contribution of the Greater Market Development Department to the merchandising activities of the A. E. A.

12,543 Miles of Highway Now Under Construction

WASHINGTON, June 8—Road projects totaling 12,543.3 miles, at an estimated cost of \$318,806,492.63, of which the Federal-aid allotment is \$134,453,457.35, were under construction in the United States on May 1, according to a report issued by the U. S. Bureau of Public Roads.

In addition 2531.7 miles have been approved for construction at an estimated cost of \$64,117,127.86, of which the share of the Federal Government will be \$25,443,883.76. This will leave a balance of Federal-aid funds available for new projects of \$82,882,714.44.

Nebraska took the lead in the amount of road under construction in this report, with 1167.8 miles.

Vote on Sunday Closing

CHICAGO, June 4—A referendum on Sunday closing for automobile dealers is being conducted by the Chicago Automobile Trade Association. The deal-

Sharpen the Pencil and Scratch the Bald Spot

Many of our readers found last week's quiz interesting, but easy. The following 10 questions are just as interesting, but easier still—for those who know all the answers. Try them out on the members of your organization, your fellow salesmen, your fellow mechanics. Count 10 points to a question. Answers next week.

1. What automobile for many years used the slogan, "The Car of the American Family"?
2. When and where was the first automobile contest held in America?
3. How many entries were there and how many cars finished?
4. Who was the winner and what was the distance and time of the winner?
5. What automobile manufacturer wanted to attend the first race held in America, but could not find anyone to lend him the carfare from Detroit to the scene of the race?
6. What prominent truck manufacturer is a Chevalier of the French Legion of Honor?
7. How can a balloon tire, with 35 lb. air pressure, support the same weight as a high pressure tire, with 70 lb. pressure?
8. Why is the use of oil that is heavier than that recommended by the engine or car manufacturer dangerous?
9. How many diameter sizes of automobile spark plugs are there in the United States and what are they?
10. What is the unit of electrical pressure and why is electrical pressure important?

Answers to June 2 Questions*

1. Oldsmobile and Reo are two automobiles named after the same man, Ransom E. Olds. The name of the Reo is composed of his initials.
2. (a)—John S. Gray, at that time president of the German-American Savings Bank, Detroit, was the first president of the Ford Motor Company. (b)—Edsel Ford is the present president of the company.
3. John Boyd Dunlop (1840-1921), a Scotch veterinary surgeon, is credited with being the inventor of the pneumatic tire.
4. The Chrysler has model numbers indicating miles-per-hour, 50, 60, 70 and 80.
5. General Motors Corporation uses the slogan, "A Car for Every Purse and Purpose."
6. To Charles F. Kettering, now president of General Motors Research Corporation, is credited the invention of the first successful and practicable electric starter for automobiles (1911).
7. Buick, Chevrolet, Oldsmobile, Packard and Stearns are five makes of automobiles bearing the names of men no longer connected with the companies manufacturing them.
8. The standard tread of automobiles is 56 inches, although there are departures from this norm or standard.
9. Detroit is said to have become established as headquarters of the automobile business in 1906, when production of the curved-dash Oldsmobile—then made in Detroit—reached the staggering figure of 6500 cars.
10. "Motocycle" was the word which won a prize of \$500 in 1895, in a contest to decide what Americans should call the new horseless vehicle, in lieu of the too foreign-sounding "automobile."

* These answers are not guaranteed, but are secured from sources thought to be reliable.

ers also are being asked to vote on closing week day nights. Many dealers in various parts of Cook County have expressed the desire to close their salesrooms on Sunday and certain nights of the week.

Scranton Auburn Agency Formed

SCRANTON, PA., June 7—The Auburn Motor Co. has been organized here to take over sale and service of the Auburn car. W. H. Frisbie, prominent silk manufacturer, is one of the financial backers. Charles Lee has been selected as sales manager.

C. I. T. Handles Hudson

NEW YORK, June 4—An agreement was signed this week between Hudson Motor Car Co. and Commercial Investment Trust Corp., for the handling of retail time-payment sales.

Mulvaney in New Quarters

BILLINGS, MONT., June 7—The Overland Mulvaney Co. has taken possession of its new building on N. First Ave. and Twenty-sixth St. The structure has a total area of 42,000 sq. ft. W. J. Mulvaney is president of the concern.

Goodyear Frames New Capital Plan

Simplified Structure Will be Passed Upon by Stockholders, July 11

NEW YORK, June 6—New plans for simplifying the capital structure of the Goodyear Tire & Rubber Co. will be offered to stockholders at the annual meeting called for July 11 by the board of directors. The stockholders will be asked to consider and approve the following:

The issue of \$60,000,000 first mortgage 5 per cent collateral bonds.

The retirement of the existing three 8 per cent securities—first mortgage bonds, debentures and prior preference stock.

Issuance by the Goodyear company of a new class of preferred stock without par value, authorized amount of 1,000,000 shares, bearing dividends at the rate of \$7 annually, redeemable at \$110, entitled to \$110 on the voluntary liquidation or dissolution and \$100 on involuntary liquidation or dissolution, and to have a sinking fund of 10 per cent of the consolidated net earnings after deducting all charges and income taxes and purchase fund requirements on the \$60,000,000 of new bonds and dividends on all preferred stock. This new preferred will rank ahead of the existing preferred and will have one vote per share in the event of default.

The existing preferred stock is to be exchanged for the next preferred on the basis of one share of the existing preferred for 1½ shares of new preferred. Such opportunity to exchange is conditional upon the acceptance thereof of such percentage of the existing preferred stockholders as the board of directors shall determine.

April Retail Business Showed Rapid Increase

WASHINGTON, June 9—The volume of retail trade, indicative of general business conditions, showed a rapid increase in April and was generally higher than in the same month of any previous year, according to a report of the Federal Reserve Board.

While the retail business increased, department store stocks showed no increase, the increased business representing a larger turnover. Wholesale trade as charted from six leading lines, continued in volume below March and below April, 1926.

Automobile School Moved

NEW YORK, June 7—The West Side Y. M. C. A. Automobile School, which has enrolled more than 30,000 students since 1903 and which has an automobile mechanics' training school, has moved to new and larger quarters at 109 W. Sixty-fourth St. from its

Plays Santa Claus in Used-Car Sale

SEATTLE, June 4—Santa Claus visited Seattle in May through the unique used-car sale sponsored by C. H. Wells, Inc., Chevrolet dealer, Seattle.

During this sale, every person buying a used car valued at \$125 or over, was given a free prize from his choice of 10 valuable presents ranging from a 42-piece dinner set to a resident state hunting and fishing license. A new tire and tube was also given free to each purchaser of a used car, regardless of price.

former home at 318 W. Fifty-seventh Street.

Optometrists to Discuss Problems of Motor Vision

WASHINGTON, June 9—One evening of the thirtieth annual congress of the American Optometric Association, which meets here June 20-24, will be devoted to problems of motor vision, it was announced by Dr. Paul Kimball, secretary.

Appointment of a motor vision director in every state is one of the objects of the National Motor Vision Commission of the association, according to Dr. Edwin W. Silver, of this city, chairman. This director should have power to impose an eyesight test on automobile drivers where such a test is considered necessary, Dr. Silver said. Such regulations are now in effect in New York, New Jersey, Maryland and Connecticut.

Two More Counties in Iowa Win Their Letters

DES MOINES, June 4—Two more Iowa counties move into the five numeral class with the 1928 license registration and will have letter instead of numeral identifications. Jasper has been assigned "P" and Lee "R" by W. M. Colladay, superintendent of the state motor vehicle department.

The 1928 plates will be white with black numerals and the department has ordered 660,000 pairs of auto plates and 70,000 truck plates, based on registration last year of 651,475 autos and 52,290 trucks. License fees in 1926 totaled \$10,208,674.

India Tire Nets \$141,200

AKRON, June 9—Tire sales of India Tire & Rubber Co. totaled 132,107 in the first four months of 1927 as compared with 50,327 in the same period in 1926. Tube sales were 131,971 against 45,098. The sales volume in the 1927 period totaled \$2,227,352, as against \$1,340,135 in the same period last year. Net profit for the first four months was \$141,240.

Jewels Are Source of Marmon Colors

Bazaars in 300 Cities Will Reveal How Precious Stones Inspired

INDIANAPOLIS, June 9—Colors of striking beauty are being copied from jewels for the finishes of the Series 75 Marmon automobiles. The natural colors of numerous precious stones and their rock formations, have been taken as the foundation for the new tone which will be shown for the first time at Marmon Jewel Color Bazaars arranged at more than 300 principal points throughout the country. These new color schemes have been worked out by Marmon in collaboration with Valentine & Co. Proportions of color used on the automobiles closely follow those in the jewels and even the stripings in the stones serve as the basis for stripings on the cars.

In developing the new series of jewel colors, Marmon has laid stress not only on the exterior finishes of the cars, but on the interiors as well. As an example, in one particular car where Ceylon Blue Spinel is used as a color source, the seats are of blue and the walls of harmonizing brown as a contrast. Hardware fittings are covered with bronze and needlepoint laces. Silk window appointments and vanity cases covered with tapir-calf complete the interior effect.

Another example of the new jewel color harmony to be used on the large Marmon cars, is shown in a sedan where color sources are certain ornamental stones found in the American desert—the crystalite, chrysylite and malachite. The body tone is malachite green, while the fender, upper works and running board sides are crystalite blue. A waving striping of the blue repeats the latter note, while the wheels are of the malachite green. Brown textiles on the interior offer the necessary contrast.

Detroit Group to Handle Car Shipments by Water

DETROIT, June 4—Of great interest to the automotive industry is the announcement made today that A. Miller McDougall, well-known Duluth shipping magnate, and Mason P. Rumney, president of the Detroit Railway & Harbor Terminal, and their associates, will spend \$20,000,000 to make Detroit a port of all-water traffic.

The Terminals & Transportation Corp. of America is the name of the new organization, which will control many subsidiaries in other cities along the Great Lakes besides putting into operation the first all-water route from New York to Detroit. The corporation plans to handle many automobile shipments on outbound trips, according to the announcement.

San Antonio Chevrolet Dealers Discuss Service

SAN ANTONIO, June 4—An enthusiastic series of meetings or service conferences was held recently in San Antonio when the two San Antonio Chevrolet dealers and Chevrolet dealers from many points in the San Antonio district came together for a five-day meeting.

In conducting the sessions, J. M. Marks, parts and service manager for Chevrolet, with headquarters in Houston, was assisted by C. W. Fordham, service promotion representative, who specialized in modern shop layouts for dealers' service departments; K. K. Kepler, service representative to assist dealers' service men in their problems, as these meetings fit in with sales promotion work; L. P. Randall, assistant sales manager, and W. E. Cabeen, city sales manager for San Antonio and Houston.

Protests License Bill

CHICAGO, June 4—The Chicago Automobile Trade Association is urging dealers throughout the state to protest to the State Senate against the passage of a drivers' license bill, which has been reported for passage by the Senate Committee on Highway Transportation. Attention is called to the fact that in a recent referendum conducted by the Illinois Automotive Trade Association the dealers of the state voted nearly 10 to one against a drivers' license law.

Segregates Whippet Sales

MINNEAPOLIS, June 6—Minneapolis Willys-Knight Co., 1201 Harmon Pl., Minneapolis, general offices and

parent store, has taken quarters at 1124 Hennepin Ave., to be known as Minneapolis Whippet Sales Division, where Whippet cars will be merchandised exclusively. S. A. Maze, formerly president of Speed Motor Co., will manage Whippet sales. Willys-Knight cars will be sold from the main sales department as before.

Excise Taxes for Ten Months Drop 44 Millions

WASHINGTON, June 4—Collection of internal revenue taxes on automobiles and motorcycles during the month of April totaled \$6,440,345.27 as compared with \$10,094,915.92 for April, 1926, the reduction being due to the reduction of the tax from 5 to 3 per cent, the Internal Revenue Bureau announced here this week.

Total taxes on automobiles and motorcycles for the first 10 months of the present fiscal year totaled \$53,361,567, as compared with \$98,199,079 for the same period of the previous fiscal year, or a decrease of \$44,837,511.83.

Form Oakley Chevrolet Co.

CINCINNATI, June 1—The Oakley Chevrolet Co., of Cincinnati, has been chartered to handle the Chevrolet line of cars in the Oakley addition of the city. Incorporators are Thomas G. Johnstone, Paul K. Moorman, John Meyer, M. Krampe and Herman W. Santon.

Mike Opens New Shop

PORTLAND, ORE., June 4—Mike M. DeCicco, Kelly tire dealer of Portland, recently opened his new "Mike's Automotive Shop," 615 Hood St., Portland.

Car Exemption Denied in Bankruptcy Ruling

MILWAUKEE, June 7—An interesting ruling by Federal Judge F. A. Geiger at Milwaukee has been handed down in the case of A. P. Hess, of Kenosha, Wis., a journeyman plasterer, who went into bankruptcy and claimed as an exemption his automobile. The exemption was denied.

Hess sought to take advantage of the section of the bankruptcy law which provides that a bankrupt may retain a team of horses or mules, or a motor car worth not more than \$400, if necessary to his business. He claimed that his car was necessary for taking him from job to job as a plasterer, but the referee thought otherwise and his stand is sustained by the Federal Court.

Ohio Boosts Gas Tax

COLUMBUS, O., June 3—The new Sullivan gasoline tax law, passed by the Ohio General Assembly, went into effect May 25, with but little preliminary notice to motor car owners. The new law increases the tax on all gasoline used in motor cars from 2 to 3 cents per gallon. The tax will be collected from wholesalers, and is expected to raise an additional \$7,000,000 per year for new highways. The proceeds from the original 2 cents per gallon tax will be used for road maintenance as in the past.

Two Get Gardner Franchise

KANSAS CITY, MO., June 4—Gardner Motor Sales Co., Gardner branch here, announces the O. K. Auto Co. has been given the Gardner dealership in St. Joseph, and the Carlock Motor Co. in Wichita.

John Cleary Says—

¶ Ambition, Distraction, Mortification and Derision.

¶ These were the four elementary parts of arithmetic as the Mock Turtle learned them at school, he told Alice in Wonderland.

¶ On the evidence of your bookkeeping system today, would the Mock Turtle greet you as one who was taught in the same school?

What's Coming in Motordom

SHOWS

Chicago	Nov. 7-12
Exposition, Coliseum, Automotive Equipment Association.	
*Chicago	Jan. 28-Feb. 4
National, Coliseum, National Automobile Chamber of Commerce.	
Chicago	Jan. 28-Feb. 4
Automobile Salon, Hotel Drake.	
Cleveland	Nov. 14-19
Convention Hall, National Standard Parts Association.	
Des Moines	Feb. 20-25
Coliseum.	
Green Bay, Wis.	Aug. 29-Sept. 2
Auto Building.	
Los Angeles	Feb. 11-18
Automobile Salon, Hotel Biltmore.	
New York	Nov. 27-Dec. 3
Automobile Salon, Hotel Commodore.	
*New York	Jan. 7-14
National, Grand Central Palace, National Automobile Chamber of Commerce.	

San Francisco	Feb. 25-March 3
Automobile Salon, Hotel St. Francis.	

*Will have special shop equipment exhibit.

CONVENTIONS

American Automobile Association, Annual Meeting, Ritz-Carlton Hotel, Philadelphia	June 16-17
Automotive Equipment Association, Summer Convention, Multnomah Hotel, Portland, Ore.	June 27-July 2
Automotive Equipment Association, Coliseum, Chicago	Nov. 7-12
National Association of Automobile Show and Association Managers, Drake Hotel, Chicago	July 28-29
National Automobile Chamber of Commerce, Factory Service Managers' Forum, Hotel Statler, Cleveland	June 14-15
National Automobile Dealers Association, Sales Meeting, Los Angeles	June 14

National Automobile Dealers Association, Sales Meeting, San Francisco	June 21
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National Standard Parts Association, Hotel Hollenden, Cleveland	Nov. 14-19
North Carolina Automotive Trade Association, Morehead Villa, Morehead City, N. C.	August 15-16

RACES

Abilene, Texas	July 4
Altoona, Pa.	Sept. 5
Atlantic City	Sept. 24
Charlotte, N. C.	Oct.
Detroit	Sept. 10
Los Angeles	Nov. 27
Salem, N. H.	June 25
Salem, N. H.	Oct. 12
Syracuse, N. Y.	Sept. 3

Austin Dealers Elect Dealer to Presidency

AUSTIN, TEX., June 4—J. T. Simmons, president of the Robinson Motor Co., Chrysler distributor, was elected president of the Austin Automotive Dealers Association at the annual meeting. Gene Shropshier was named vice-president, and Monroe Bergstrom was elected secretary-treasurer. Several new members were elected to the association.

The Austin organization is making an effort to standardize used-car prices and develop better service to owners.

Dealers reports made at the meeting were that sales for May had shown an improvement and the outlook for the remainder of the year is bright.

Open Moon Agency in Portland

SEATTLE, June 6—The McIntyre & Kelty Co. has established a new Moon-Diana agency at Portland, Ore. Mr. McIntyre is a newcomer to Portland, but Mr. Kelty has resided in that city for a number of years and is well-known in business circles. A full line of Moon and Diana cars is carried and a complete service shop, with a full stock of parts, has been installed.

Hess on W. A. D. A. Board

LONGVIEW, WASH., June 4—Fred Hess of this city has been named to the board of directors of the Washington State Automobile Dealers Association. He is a Ford dealer and also president of the Cowlitz County Automobile Dealers Association.

Grant Tire in New Quarters

SPRINGFIELD, ILL., June 7—The Grant Tire Co., owned by Frank H. Grant, has taken a 20-year lease on the building at 322-324 S. Fourth St., and formally occupied its new quarters. The Grant company is Goodyear distributor in seven adjacent counties.

Brown Service Organized

COLUMBUS, OHIO, June 8—The Brown Service Tire Co., chartered with a capital of \$30,000, has been organized to occupy a new garage and serv-

ice station being erected on South Fourth St., near the business center of Columbus. Drive-in service for both tires and batteries will be afforded in the rear. Another feature of the establishment will be an auto laundry with the latest equipment. The structure will be completed about July 15 when the newly organized company will take charge.

Iowa Star Dealers Meet

FORT DODGE, IOWA, June 4—Dealers, salesmen and employees of the Star car in northwestern Iowa to the number of 100 gathered at the Fort Dodge warehouse of the Durant company last week for a sale and service conference. The guests were entertained at a dinner. George Underhill, Lansing, head of the division of service; Zach D. Dunlap, Elizabeth, N. J. office of Durant Motors, and T. E. Jarrett, Lansing, regional manager, were speakers at the meeting, which was under direction of the Dunlap-Arnold Co., distributor for the Star in this territory.

Dunn Names Service Men

SEATTLE, June 6—Dunn Motors, Inc., Chandler distributor, announces the appointment of three experts in the service and maintenance departments. They are Ray Davis, service manager; Harry Barnum, shop foreman, and Hudson Tarte, parts manager.

Cod for Bay State; Green for Michigan

DETROIT, June 4—While Massachusetts plans to memorialize the codfish by placing a replica of it on automobile license plates in 1928, the State of Michigan also plans a unique honor whereby the state will make green the predominating color on next year's license plates, in honor of Governor Fred W. Green.

Louisville Group Buys Building for Storage

LOUISVILLE, KY., June 4—Business property valued at approximately \$150,000 was represented in a purchase by the Louisville Automobile Dealers Association, it was announced by Prince Wells, president of the organization.

The organization plans to use the building for the storage of automobiles, tires and other automobile merchandise and after extensive remodeling, installation of larger elevators and other improvements, Mr. Wells said. The building has an estimated capacity of 700 automobiles, which, it is believed, would adequately take care of the storage of local dealers during the winter.

McCall Buys Out Lyman

SEATTLE, June 8—J. W. McCall, a veteran in Pacific Coast tire business with General, has purchased the General tire distributorship of Lyman & Co., Seattle. The firm will henceforth be known as the General Tire Co. Mr. McCall has been in the tire business in Los Angeles and San Francisco for the past 10 years.

Walker Directs Darnall Service

ATLANTA, June 8—L. A. Walker, one of the pioneer service managers in Atlanta's automobile row, having been identified with the business for nearly 20 years, has been appointed service manager for the Darnall Motor Co., Atlanta, Oakland and Pontiac dealers.

Opened Second Branch

SPOKANE, June 7—The Marsh-Strickle Motor Co., Inland Empire distributor of Star cars and Federal trucks, has opened a second branch here on East Sprague Ave. at Grant Street.

Taylor and McGuire Partners

PORLTAND, ORE., June 8—D. A. McGuire and H. R. Taylor have formed the Taylor & McGuire Co., metropolitan dealer for Oakland-Pontiac in the peninsula district here.

*We nominate
for the*
**MOTOR AGE
Hall of
Fame**



H. J. KLINGLER

Because he brilliantly earned his new appointment as general sales manager of Chevrolet during years of association with R. H. Grant, vice-president of the company



HARRY G. MOOCK

Because he is doing things not only for the wholesalers who compose the Automotive Equipment Association, of which he is managing director, but for all classes of retailers as well—car dealers, service stations, garages, accessory stores, filling stations selling supplies, and so on

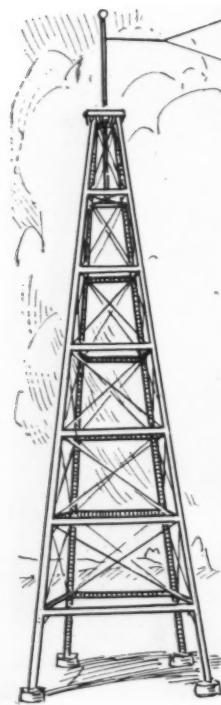


F. W. WISDOM

Because he has started out in such record-breaking fashion as northwestern sales manager for Elcar that R. A. Rawson, sales manager, has been forced to increase his estimate of factory output for the year, and because he apparently made a thorough canvass of the territory before going on the job

GEORGE PETHARD

Because he has just started on the longest driveaway in history—a trip of 5,400 miles from the Oldsmobile factory, in Lansing, to Bendigo, Victoria, Australia, where he is the Oldsmobile dealer. The trip will take four months



You cannot be a merchandiser unless you use sales promotion. To promote means to move forward something in its course. Sales promotion, then, means any effort you use in moving forward your sales. Merchandising consists in putting forth efforts to move forward your sales. Therefore, you cannot be a merchandiser unless you use sales promotion.

ADVERTISING is another one of those things that everybody knows about—like editing a newspaper or running the Government. And, just as the professional gentlemen who make their livelihood out of those two delicate jobs are more likely than their lay brethren to admit their ignorance at times, so the veteran practitioner of advertising is less cocky than the amateur in asserting what is good and what is bad in advertising, what will and what will not bring results, how much money should be spent for a given purpose in a given time, and so on.

It is true of advertising, as of philosophy, that the more you know about it, the more you know there is to know about it.

What concerns you as a dealer is how you can make use of advertising to help you promote the profitable sales of your merchandise. In other words, you want to know how advertising fits into your sales promotion plan and what part it plays in that plan.

First of all, what is advertising?

There are almost as many definitions as there are advertising men. If you would subscribe to some of these definitions, you would have to agree that advertising is the whole thing in manufacturing, wholesaling and retailing. Those who make the broadest claim for advertising seem to give little or no credit to the manufacturer for building a good product and organizing a wide-flung distributing organization, and even less than no credit to the distributors and dealers and their salesmen for their go-getting activities. It is not detracting one iota from the well-known tremendous power of advertising to state that no matter how well or how extensively a product is advertised, it must be sold. Our definition, then, should not take in too much territory.

Out of the multitude of definitions, bristling with "power" and "force" and "mental processes" and "practical applied psychology," it might not be amiss to pick the simple declarative statement of Elbert Hubbard as expressing the meaning and function of advertising in words that everyone can understand:

"Advertising is telling who you are, where you are and what you have to offer in the way of commodity

Advertising's Part in

You use it mainly to broadcast good points of the in the hope that will be "lis

By John

or service. The only man who should not advertise is the man who has nothing to offer."

That definition can be construed to cover the principles of the two warring schools of advertising thought, as well as the more modern school which combines the two, "retaining the best features of each."

For there are different philosophies of advertising—and the disciples of each are zealous in maintaining that their's is the only true advertising.

According to one of these schools, advertising is printed salesmanship, nothing more and nothing less. It is the teaching of this school that each advertisement should stand on its own feet as an argument why the reader should buy the goods advertised. If it does not, of itself, achieve this purpose, it is not a good advertisement, regardless of its attractiveness, its suggestion or its part in a big campaign to influence the public mind. The believers in advertising as "salesmanship in print" scoff at what they term the pretensions of the opposite school.

A Method of Suggestion

This other group is composed of men who teach that advertising is not printed salesmanship, but something far beyond that. In their conception, advertising is a method of suggestion, whereby the public can be so impressed with the desirability of a product that it will be predisposed in favor of that product, to the exclusion of all other products in the same line. Instead of attempting to make sales, this type of advertising is planned to create reputation, or prestige or good-will. The primary principle of this school of advertising thought may be summed up as follows: What one man thinks is an opinion. That opinion multiplied becomes public opinion or reputation. There is always a demand for the product of good reputation. So, give your product a good reputation, through your advertising, and there will always be a demand for it.

Now comes the intermediate school, combining the teachings of both the others by building reputation and making sales at the same time. Much of the automotive advertising appearing today may be described as this sort of combination.

If you will look into the claims of all three kinds of advertising, you will see that they are covered by the Hubbard dictum:

"Advertising is telling who you are, where you are and what you have to offer in the way of commodity or service."

For you, as an automobile dealer, regarding advertising as the first step in the promotion of your sales, the job is started by the factory. The national advertising in the general magazines broadcasts to the circulation

Dealer Sales Promotion

cast to all and sundry the product you handle—some possible buyers taining-in”

Clearly

points of those magazines the thoughts that the manufacturer wants the public to think about his car. You profit from that broadcasting to the extent of the number of your prospects who may be included in the circulation of the magazines in your territory, and who may "listen in" to the message of your factory.

To a greater extent you profit from the national broadcasting of the factory when that is done through the newspapers circulating in your community.

The purpose of all this broadcasting may be said to tell the public the third of the three things mentioned by Elbert Hubbard in his definition of advertising:—"What you have to offer in the way of commodity or service."

In the co-operative plans offered by the automotive factories generally nowdays, the purely local newspaper campaigns give you an opportunity to tell your public the other two facts that should be emphasized in your advertising:—"who you are and where you are."

Many dealers find it profitable to supplement the factory's national advertising and the co-operative local advertising with personal advertising of their own. Without neglecting your share of the co-operative advertising, you should give serious thought to the value of your own personal advertising in your local newspaper.

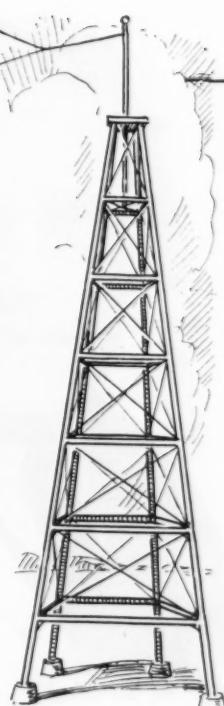
Here's the reason:

Every buyer knows that there is more involved in the purchase of an automobile than the mere writing of a check and the delivery of the car. There are really four elements: the manufacturer, his integrity and permanence; the car itself; the dealer and his reputation; the service.

Now the manufacturer can take care of the first two factors, himself and his product, in the factory-prepared advertising. But he can only partly, or not at all, dilate on you and your service in his advertising. That is part of your job.

An old-time newspaperman, who had covered Automobile Row in his city for years got the name of knowing much more about the various makes of cars than he deserved, or professed to deserve. He was often asked to recommend a car in a certain price class. His reply was invariable. "I don't know a darn thing about machinery," he would say, "but if you go up and buy a car from Tom Brown,"—mentioning a dealer in the price class desired—"you won't go wrong. I don't know cars, but I do know people. I know Tom Brown, and if the car he is selling isn't a good car, Tom wouldn't be selling it. And, what's more, I'll bet you get good service from him after you buy it."

In "The A B C of Dealer Sales Promotion" in last week's MOTOR AGE, we outlined the primary elements of this vitally important factor in modern merchandising. We showed how dealers can use it to advantage before, during and after the sale. Advertising, one of the component parts of sales promotion, in its broader sense, is discussed in this article.



Of course, you can't buy that kind of advertising, but the story serves to bring out the value to you of a good reputation for square dealing and efficient service.

If you do any of this local personal advertising, do not claim too much either for yourself or your service. Be restrained. Promise a little less than you know you can perform. The buyer who has been promised 15 miles to the gallon and gets 20 is a whole lot better booster for your car than the man who is promised the top performance of 20 and happens to scale under that mileage. The owner who gets his car out of your service station a few hours ahead of time is much more pleased than the one who has to wait 15 minutes beyond the promised time. To use a word that is popular among the advertising men, you know the "psychology" of that. Get a little of it into your advertising. (Psychology, by the way, is only high-hat for "a knowledge of human nature," which, again, is another way of saying "common-sense.")

Influences Prospects

All the advertising of your car appearing in your territory is in the form of broadcasting to all the people in your territory—all those who may not buy your car as well as those who may. The advertising must take its chance with all the other attractions on the air—news, editorials and other advertising. It is too much to expect that all your prospects will turn their knobs off the sports or stocks or fashions stations to give their undivided attention to your advertising message.

But, rightly timed and rightly worded, this broadcasting of your advertising message will prove a great aid to you in influencing the minds of your possible buyers—many of them unknown to you—so that you or your salesmen will find them receptive when you finally make contact with them, provided that you talk about the same things that the advertising has talked about.

That is the final touch in getting the value of your advertising as a sales promotion adjunct. Read the advertising of your own car. Study it. And talk to your prospects about the things that are discussed in the advertising.



*W. M. Cunningham,
Comptroller*

A Good Book

The Most Important

*It Will Draw Money Out of Overdue Accounts,
Turn Over Inventory, Properly Distribute
Overhead and Hold Operation Costs and
Salaries to Figures That Are Com-
mensurate With Your Business*

By W. M. Cunningham

JONES, who owned an authorized service station in a town of about 25,000 population, had been on a C.O.D. basis for some time. Robinson, auditor of the national institution that was the source of supply for Jones, did not know Jones, but he did know the town where Jones was located. He wondered at the condition of the Jones account and thought he would like to know the real cause of that condition.

It happens that Robinson is one of those auditors who realize how important it is to keep in close touch with the local, individual problems of his company's service stations and distributors. So, ever so often, he makes a trip into the field, visits two or three of these concerns and gets acquainted with the owners and all phases of their business.

The other day he dropped in to see Jones. After a little intimate chat, he switched to business.

"Mr. Jones, what machinery and tools have you in your shop?" asked Robinson.

The service station owner enumerated at some length the various pieces of machinery and tools with which the shop was equipped.

Then the auditor went on, "Now, Mr. Jones, I see you know exactly what tools you have in your shop, but have you ever stopped to think that perhaps the most important tools you have in your business is right in these offices? At least, I hope you have it here. What I mean is a good bookkeeping system. If you have such a tool, I wonder whether you have used it as much and as well as you might?"

Jones promptly assure the auditor that he had a bookkeeping system, kept by an old bookkeeper and that as he, Jones, did not like figures, he left that end of the business pretty largely to the bookkeeper.

"Well, even though you don't like figures very much, don't you think it would perhaps be a good idea if we went out together and had a talk with the bookkeeper? For the satisfaction of both of us, let's at least glance over the books ourselves."

Jones agreed that it would be a mighty good idea, so they started going over the books with the bookkeeper. The auditor found that this service station had a good average bookkeeping system—perhaps a little old-fash-

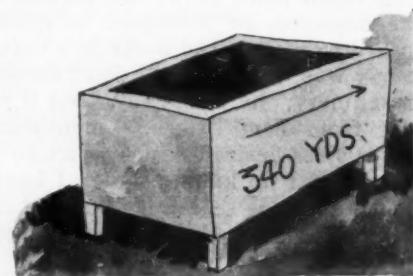
ioned, but at least accurate as far as it went. But the bookkeeper was considerably behind in many of his postings and no profit and loss statement had been made for a long time. As they went along, however, it was very evident that here was a concern that had a fairly accurate record of its business.

But they did not know what to do with the figures after they got them. Apparently, it was just a case of there being a bookkeeping system maintained because it was "the thing to do." Neither the owner nor the bookkeeper seemed to have made any attempt to analyze the figures at hand.

So this gave Robinson just the opportunity he wanted to point out certain fundamental facts about reading this accounting picture.

The records indicated that this concern had been doing a fairly good volume of business, though the net profit for the preceding year was exceedingly small. The owner called attention to this large volume with considerable pride. The auditor agreed that it was a very good volume but pointed out that it was not so much the volume of business done as the amount of profit made that counted. He stressed the point that the all-important thing in any business is to determine how much profit is being made on the amount of money invested in the business. In order to drive home this point in such a way that not only the bookkeeper but also the owner would be impressed, the auditor cited the following example to illustrate what he meant by turn-over of investment.

"Now the figures I am going to show you" said Robinson, "are not assumptions but actual results taken from the records of three different concerns which we will call A., B. and C." He then set down for each of these concerns the amount invested



keeping System— TOOL in Your Business

in the business, sales, ratio of sales to investment (investment turnover), per cent net profit on sales and the per cent return on investment.

	Amount Invested In Business	Sales	Ratio of Sales to Investment	Per Cent Net Profit on Sales	Per Cent Return on Investment
(A)	\$30,000	\$114,000	3.8	5%	19%
(B)	40,000	100,000	2.5	6%	15%
(C)	45,000	56,250	1.25	8%	10%

Both the owner and the bookkeeper said that these figures certainly brought out clearly and forcibly the auditor's point as to return on investment being the true measure of the financial success of a business, as compared with using net profit on sales as the basis of measurement.

They then proceeded to analyze this particular service station's business to see how much profit had been made for the current year to date. The figures when tabu-

THE author of this highly instructive article, W. M. Cunningham, is comptroller of United Motors Service and as such is an authority in the treatment of accounting as applied to the automotive business. It is a frank but constructive criticism of a well-known business shortcoming.

lated by the auditor showed the return on the amount invested to be about 8 per cent.

"Mr. Jones," said the auditor, "it seems to me that on the business you have here, it ought to be possible to make at least 15 per cent on your investment, instead of only 8 per cent which your records now show. Now suppose we look over your records of Accounts Receivable

"Try this club. It will see you safely over business hazards to the profit green"



ble." An examination of these accounts showed the following:

Current (not due)	65%
1 to 30 days past due	18%
30 to 60 days past due	10%
60 to 90 days past due	5%
Over 90 days past due	2%
	100%

"Right here, Mr. Jones, is where some of your trouble lies," said the auditor. "Your records show that 35 per cent of your accounts with your customers are past due. This means that you are acting as the banker for your customers to the extent of about \$3,000 at the present time."

"Well," said Mr. Jones, "some of my customers are a little slow in paying their bills, but I know most of them personally and I feel sure these accounts are all good."

Costly Friendship

"Granted that they are all good, Mr. Jones, that is not the point," said the auditor. "No business, either large or small, can afford to carry the percentage of past due accounts that your records show. If you had on hand right now, the larger part of this \$3,000 past due accounts it would not be necessary for you to be on a C.O.D. basis with us."

"What is the minimum percentage of past due accounts that I can safely carry on my books?" asked Mr. Jones.

"Not over 5 per cent," replied the auditor.

The next item taken up was an examination of the inventory accounts. The auditor pointed out to Jones that his inventory turnover was only about one and a half times per year.

"In certain kinds of business this result might be considered good," he said, "but not for the business you are engaged in, Mr. Jones."

"What should my inventory turn-over be?" asked Jones.

"Well," replied the auditor, "I know of many service stations whose inventory turn-over is from three to four times per year, and on practically the same lines and volume of business as yours. It would take a great deal to convince me, Mr. Jones, that your problem in handling your inventory is any different than that of the other concerns I have just mentioned."

Distribution of Expenses

In going into the records further, it was very evident that there were many weaknesses in the bookkeeping methods of the concern. In trying to analyze the shop and garage end of the business, neither the owner nor the bookkeeper could say definitely whether or not that particular part of the business was on a profitable basis. The records did show for the business as a whole the total amount of sales and costs, and such items of expense as salaries, rent, light, heat, taxes, depreciation, etc. However, the distribution of expense to the various departments of the business was very vague in the minds of both the bookkeeper and the owner. No attempt had been made to provide for such a distribution on the books.

Robinson then and there set about to help the bookkeeper make a distribution of expense by departments. When this was done, even though some of the items had to be distributed on an estimated basis due to lack of sufficient detailed information, it was possible to prepare a fairly intelligent analysis of the shop and garage operations and of the other departments as well.

The analysis showed that this concern was losing money in its shop. The principal reason for the loss

was that while the owner was paying his mechanics a fixed wage per week and charging his customers a fixed labor rate per hour, there was only enough work to keep the men busy about 80 per cent of the time. This left 20 per cent of the time for which the owner was paying his mechanics but receiving no return from his customers.

Even with this abnormal amount of "idle time" burden which the shop was compelled to absorb, there still remained a small margin of gross profit. Because of this fact, the owner had led himself to believe that while his shop was not doing as well as it might, it was not showing a loss. The matter of such expense items, as rent, light, heat, supplies, etc., including also a part of the salary of the owner and the bookkeeper, applying to the shop and being a definite factor to be considered in determining net profit, had just not occurred to the owner nor to the bookkeeper. They had never figured it that way.

The auditor then made several suggestions to the owner as to what could be done to put his shop on a net profit basis.

"Of course," he said, "I don't pretend to be able to give the answers to all your business problems. But I think you'll agree that once you are able to put your finger on the trouble by means of an analysis such as we have been making here, you will be better able to work out a solution for your various problems than if you didn't know they existed nor where they existed."

The owner agreed promptly, and asked the auditor to continue his analysis.

Proper Expense Ratio to Sales

The total expense for the entire business was found to be 28 per cent of total sales.

"Well," said Robinson, "I can tell you right now that this is from 3 to 6 per cent too high. Your total expense should not be over 25 per cent of sales, and I know of many concerns doing about the same volume of business as yours with an overhead as low as 20 per cent. The amount you are paying for rent for instance, is too high by at least \$100 per month, based upon the average rent paid by others on a similar volume of business.

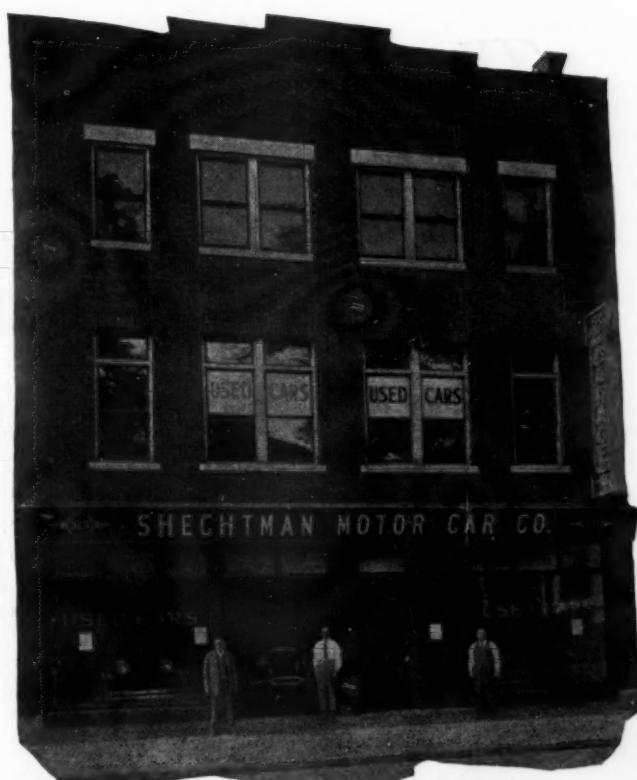
"Here is another item, Mr. Jones, which I dislike in a way to refer to, but I take it for granted that you want all the facts in the situation. One of the large items of expense in a business of this kind is salaries. If the total of this item is out of proportion to what it reasonably should be, then the business is compelled to carry an undue burden. This is reflected in the percentage of expense to sales that we have just been talking about. I mention this because your personal salary, as shown here, is just about \$100 per month above the amount which your business can logically carry.

"What I mean is this: If you owned this business purely as an investment and employed a manager to run it for you, you could not afford to pay your manager the amount of salary you are now paying to yourself. The reason you couldn't, Mr. Jones, is that the business could not carry it. In other words, each item of business expense must be regulated and controlled according to the same simple rules that one must follow in regulating each item of his personal expense, if his total personal expense is to be kept in proper relation to his income.

"For example, your personal income might warrant an outlay of \$75 for a suit of clothes, and then again it might not be large enough to allow you to spend more than \$40 for this item. You might be in a position to pay a rental of \$100 per month for the house you live in

(Turn to page 37, please)

Making The Used Car Brokerage a Bread & Butter Proposition *and Furnishing Dealer*



Hartford headquarters of Shechtman Motor Car Co.

ASK any motor car dealer today what is his greatest problem and he will say "used cars." That trade-in cars constitute the major problem with the new car merchandisers is no secret. Every dealer visualizes the time when all sales will be clean sales, when there will be no used cars to take in trade and carry for months against a slow market, tying up profit which sooner or later will be sacrificed to move the stuff.

There is known danger in heavy used car inventories. Conversion of the inventory into ready cash is the big problem. The clean slate is desirable. To do this, cooperative clearing houses and selling are being tried.

Another remedy is the used car broker who will take cars, good and bad, from the dealer, give him a fair price and thus eliminate the used car inventory with its attendant worries and evils. The dealer who cooperates with the reliable used-car broker will come out ahead of the game. If he does take a loss on a given car it will be a much smaller loss than he would sustain if he held the car. It is not the simplest thing to sell a car "as is" to a prospect. What he wants on his investment is transportation of the uninterrupted variety. Therefore, in order to assure this transportation in a trade-in car the dealer must recondition, which means a mechanical overhaul, perhaps a new fender or two, a new top, paint, seat cushions and what not.

The reconditioning means the dealer must invest more capital to move the cars he has taken in. It is obvious that the reconditioned car is going to sell

1. *Outlet for Any Number of Cars*
2. *Fair Allowance*
3. *Quick Turnover*
4. *Ready Cash*

By William T. Johnson

better than the one that has received no attention. On the other hand if he turns his used cars as he gets them in trade over to the used-car broker he is spared the cost of reconditioning and his entire transaction is to all intents a cash one, or nearly so. Now then as to proof of the broker system.

The Shechtman Motor Car Co., Hartford, Conn., is a clearing house for various dealers throughout the state and relieves them of the so-called used-car problem.

This firm was founded 15 years ago by the late Louis S. Shechtman, to handle new trucks, but after two years decided to specialize in used cars. The founder had vision.

When it was decided to embark in the used-car field it was reasoned that there would be plenty of cars available from dealers throughout the territory, which proved to be the case. From year to year the prestige of the firm increased and today it is well known all over the state as a dealer in the best traded-in cars.

The Shechtman plan does the following for the new car dealer:

- Makes a fair allowance on cars.
- Provides for quick turnover for dealer and ready cash.
- Eliminates used-car reconditioning and sales expense.
- Reduces used-car inventory to a minimum.
- Provides dealer with an outlet at all times for any number of cars.
- Affords dealer an unbiased appraisal of used cars before sale of new cars.
- Reduces losses to a minimum.

The dealer can depend upon a fair allowance and a square deal; the firm has that reputation and is guarding it zealously. He has outlet for any number

(Turn to page 32, please)



Proper equipment enables the mechanic above to do a brake relining job the right way. The wrong way is shown in the oval

BUSINESS of today is so competitive that all angles of shop operation must be closely watched if profit is to be made—and kept. Probably one of the most vital matters is a price for repair labor that is fair to customer and mechanic.

Too high a price will drive trade away, while too low a price will not leave a fair wage for the mechanic and profit for his employer.

By breaking away from the old idea of selling "so many hours at so much an hour" a long step is taken in the right direction. Sell results and charge for what is accomplished.

We can not ignore competition. In fact we do not want to, for it is competition that makes us progress.

If other shops in town are selling repair work by the hour a big advantage can be gained by selling your service on the flat rate basis. If others in your town are on the flat rate basis your next move is better work in less time, and here equipment is the answer.

FLAT RATE

The Friends

They are the Siamese Twins of Automobile Service Work. Together They Effect Fast, Certain and Satisfactory Work, and Friendly Bonds

By C. Edward Packer

By speeding up results, costs are reduced and with that condition the selling price can be reduced. Such price revision is not "price cutting" in the commonly accepted sense of the word. It is merely sound business —pricing your product, service on known costs.

Whether one is to overhaul a front system, rear axle, clutch, transmission, reline brakes, grind valves or fit pistons, special equipment will produce a better job in less time than without the equipment.

Any of the operations listed requires special tools for best results. At the same time most of these operations can be done with practically no special equipment if time is no object and inferior results are acceptable.

Let us consider a brake reline job. It is possible to jack up the car with the customer's jack, place bricks or blocks under it, hammer on the axle shafts to remove the wheels, lay the bands on the floor and chisel off the rivets, then apply the lining

in a similar way, bending the band out of shape, install them on the car, and finally test the adjustment by skidding the tread off of your customer's tires. Such work is generally charged for by the hour for no one can guess how long the job will take.

Laugh at this crude procedure if you will. But it is no joke. Some shops are doing this today. But those shops are hardly making wages. As time passes customers are lost and it will not be long until such atrocities will only remain in memory.

How much better it is to be able to quote the price when a man drives in. Also it is a big thing for the mechanic to know that he will receive a certain share of the receipts. He is then anxious to turn out a good job in rapid time.

With proper equipment the results are fast and sure. A hoist raises the car quickly and safely. Wheel pullers remove the wheels quickly and without damage. The old lining is removed from the band with speed and pre-

and Shop Equipment of Mechanic and Customer

cision. There is no damage to the band. This is assured by the use of a relining machine that cuts off the old rivets or punches them out, and then installs the new lining. The new rivets are put in through drilled or punched holes or are pressed through the lining. Whatever way is used, controlled pressure insures the rivet being properly clinched and countersunk without distorting the band.

Such bands are easy to adjust. With the aid of one of the newly perfected brake adjustment testers that are now on the market each wheel is given the correct adjustment.

The first example is not overdone—neither is the second. Each shows a way that different shops handle work. The example could be applied with equal exactness to practically any service operation. Take the simple matter of hoisting a car—an operation done regularly wherever service is handled. Some still rely on the old, troublesome method of using a jack to lift the car, and bricks or blocks to hold it.

How much better it is to have one of the safe methods. A chain hoist, for example, costs little and is most useful. If mounted on a track it can be used not only for lifting but for transporting heavy objects about the shop. In the smaller service station it is sometimes detached and taken out on the road when a service call is received. Other uses for it are found in certain kinds of frame and axle straightening jobs.

Another operation that is growing in importance is car washing. Many places are still getting along as best they can with the slop method of washing—the sponge and pail way.

The car of today is a thing of beauty and can be kept that way only by the use of proper cleaning facilities. Improper methods dull a varnished surface and grind off a lacquered one. The gentle mist or spray from a modern car washing installation loosens the dirt without damage to the surface.

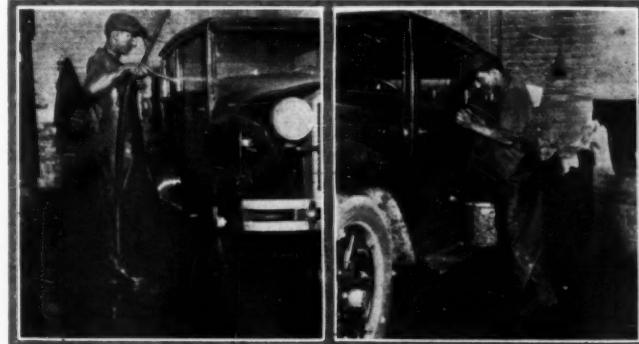
But care of the surface is not all. The modern car in addition to having a beautiful surface has a rather complicated mechanism underneath. With the old rear

(Turn to page 43, please)

Accuracy is certain
with a brake ad-
justment tester



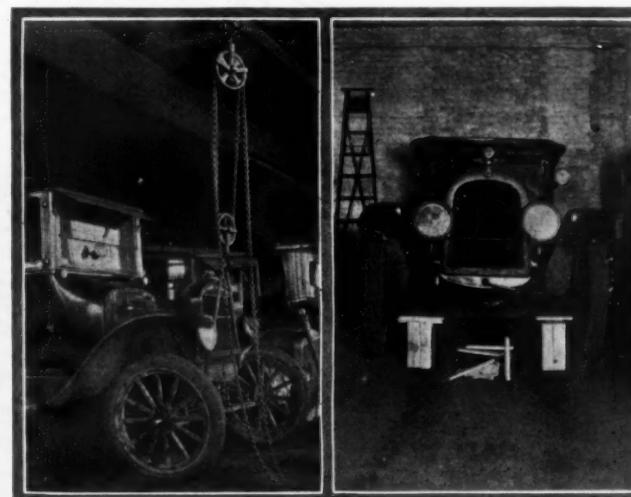
WHICH IS YOUR WAY?



The right and the wrong way to wash the modern car



Without the proper tool there is danger in removing wheels as shown in the right-hand picture



The right and the wrong way to raise a car to work under it

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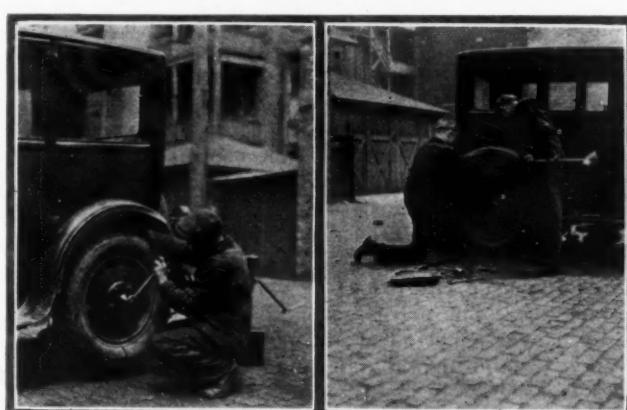
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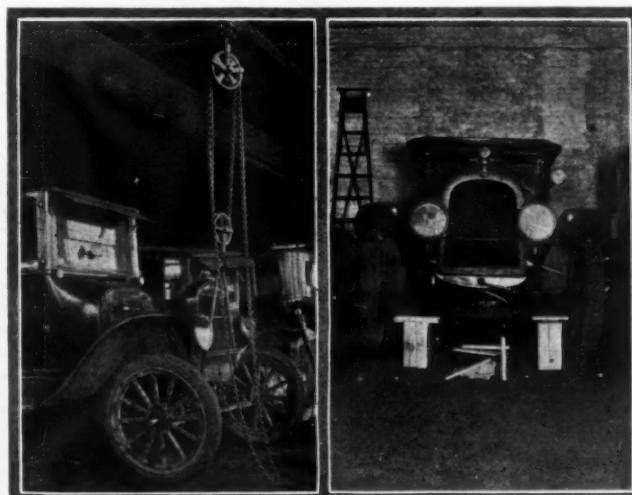
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Putting the Windsor Plan

The Father of the Idea Goes into Particulars With Regard to Procedure That Should Be Following in Instituting This Effective Method of Merchandising Used Cars

By Lewis C. Dibble

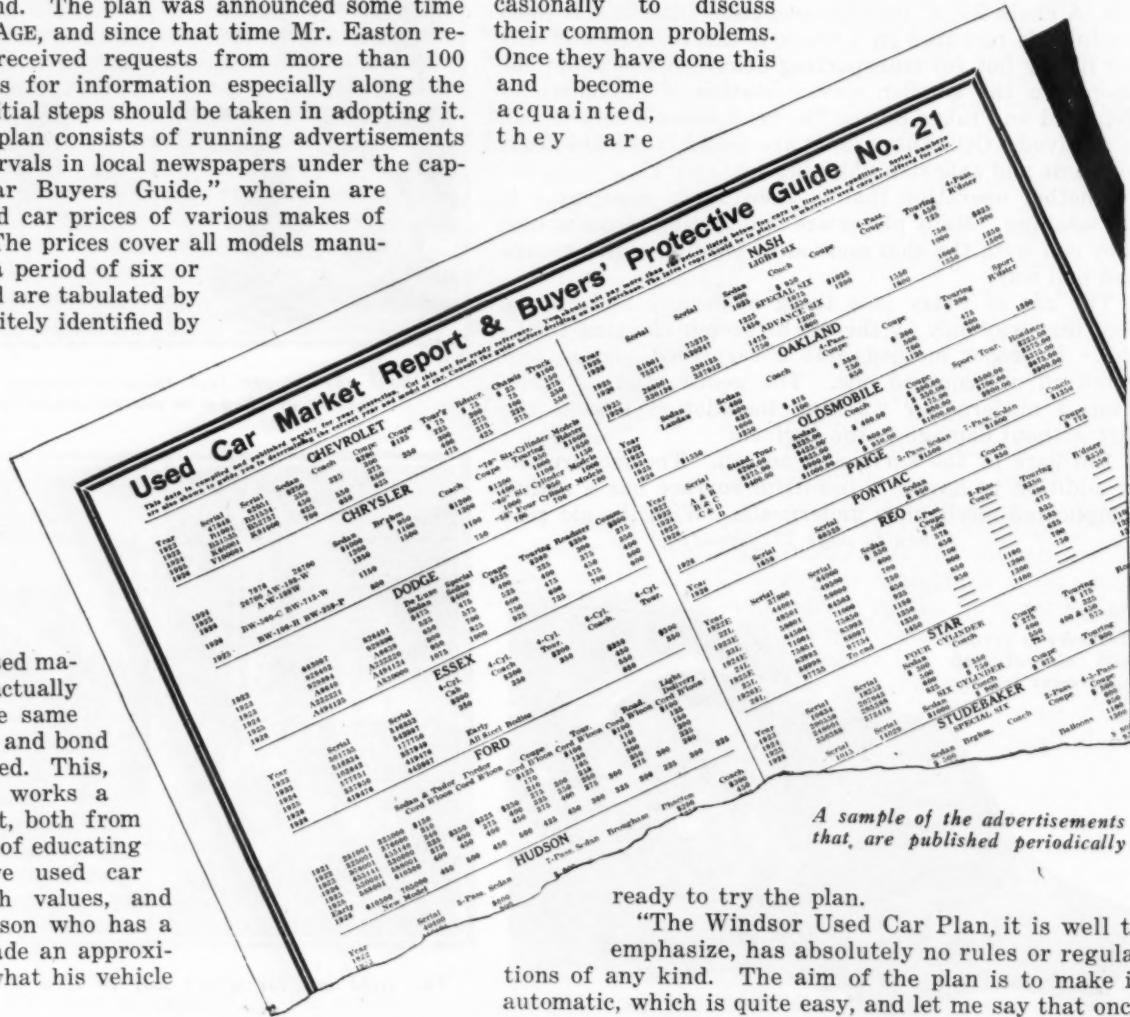
THE Border Cities Automobile Dealers Association of Windsor, Ontario, has received so many requests for information about the operation of the Windsor Plan of merchandising used cars by educating the public through price publicity in local newspapers, that G. Tate Easton, president of the association and originator of the idea, outlines for MOTOR AGE readers what he believes to be the best methods for dealer associations to pursue in adopting it.

Adopted by the dealers along the Canadian Border, opposite Detroit, two years ago, the plan has become one of the most discussed car merchandising ideas of the day, and already has been adopted by practically all the leading cities of Canada, besides being given a trial in a number of large cities in the United States and in London, England. The plan was announced some time ago in MOTOR AGE, and since that time Mr. Easton reports he has received requests from more than 100 American cities for information especially along the line of what initial steps should be taken in adopting it.

Briefly, the plan consists of running advertisements at regular intervals in local newspapers under the caption "Used Car Buyers Guide," wherein are quoted the used car prices of various makes of automobiles. The prices cover all models manufactured over a period of six or seven years and are tabulated by years and definitely identified by serial numbers which are also published. The idea of the plan is to stabilize more or less the price of used cars by giving the general public an

idea of what used machines are actually worth, just the same as stock, grain and bond prices are quoted. This, it is claimed, works a two-fold benefit, both from the standpoint of educating the prospective used car purchaser with values, and giving the person who has a used car to trade an approximate idea of what his vehicle is worth.

"The first and most important requisite in adopting the plan is a strong dealer association organization," according to Mr. Easton, "and the second most important point is for such an association to raise sufficient money to defray the cost of advertising over a period sufficiently long to give the plan a substantial trial. In my opinion it would not be advisable for dealers in any town where they have no association to consider trying the idea. If there are dealers in cities where no association exists who want to adopt the plan, they should first of all organize, and I would suggest that they no encumber their association with a great number of rules and regulations. The simpler the better. Make it more of a social organization like our service clubs, where dealers can meet at luncheon occasionally to discuss their common problems. Once they have done this and become acquainted, they are



A sample of the advertisements that are published periodically

ready to try the plan.

"The Windsor Used Car Plan, it is well to emphasize, has absolutely no rules or regulations of any kind. The aim of the plan is to make it automatic, which is quite easy, and let me say that once

into

*G. Tate Easton, father of the Windsor Plan*

the dealer association has decided to go ahead it must decide on a definite advertising schedule to run at least six or eight months. The advertisements should not appear less than twice a month and preferably during the first few months the advertisement should run every week to bring it to the public's attention.

"With the schedule formed it should be submitted to the newspaper or newspapers, as the case may be, to determine the total cost. This should be divided equally among the dealers and assessments made immediately. It has been our observation that in the few instances where the plan has not worked out well in other cities the fault lies in the fact that the dealers did not do a thorough job of laying out the advertising campaign before they started and then failed to raise the money necessary to carry on over the periods mentioned.

"The only thing the dealer agrees to do is to furnish the data for the advertisement for the particular line of cars he handles. The newspaper is instructed to carry on as per schedule, allowing the dealer only to change the price as he sees fit. In Windsor we made arrangements with the newspapers to have one of its advertising men telephone each dealer in advance of each insertion and ask the dealer if he desires to change the prices of any of his cars. This, in my opinion, is a very satisfactory arrangement and should be encouraged, if possible, wherever the plan is adopted. We originally thought of asking the Chamber of Commerce or some auditing firm to compile the material each time, but I believe the arrangement we made to have the newspaper take care of this detail is the most satisfactory of all.

Operation ~

What Does it Cost?

DURING the first year the Windsor dealers financed their Windsor Plan advertisements with the proceeds of the annual automobile show. This, the second year they are using show proceeds plus funds raised by assessing each association member \$100.

"The dealers may find at first that some prices are not just right. In some cases they will be too high, in others, low. When the advertisement has appeared three or four times dealers will have had time to adjust them properly. New dealers using this plan must remember that if used-car base prices are too high, they will load themselves up with used cars. If they are too low they will slow-up new car sales. Therefore the used-car base prices must be honest values for they are actually determined by the basic law of supply and demand.

"We have found it an excellent practice for our dealers to use an appraisal sheet, and, from what I have learned from other cities where the plan is being used, use of appraisal sheets is working with equal satisfaction. In appraising a car, examine it thoroughly, and enter on the appraisal sheet the costs for the various items which are necessary to properly recondition the automobile and it is also well to include a handling charge covering the sales expense and advertising. If a dealer will follow this practice rather closely he will be surprised to note how he cuts the losses he ordinarily takes in used cars. Dealers, incidentally, would do well to keep in mind that they do not have trouble in selling their new cars, but they do their used ones. No dealer ever went broke on his new-car sales, but the used car element is practically always the dominating factor in failures.

Newspapers Cooperate

"When we first started the plan in Windsor we used nearly a full-page advertisement and the newspaper also cooperated by running news stories calling the public's attention to the plan. Today we are using advertisements six columns wide by 12 inches deep. They appear twice a month and during the spring season we increased the schedule to once a week. The newspaper also prints proof sheets and distributes them generously among the dealers who give them to salesmen and also display them in conspicuous places in the salesrooms. The Windsor association is now having a number of frames made and three will be distributed to each dealer for use in his salesroom and on the used-car lot, to display the latest advertisement appearing in the newspaper. This will be a further aid to the public to keep posted on the latest used-car quotations.

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Making the Used Car Brokerage a Bread and Butter Proposition

(Continued from page 27)

of cars and he can unload the poor ones with the good ones. Furthermore he can do this at any season of the year, which is important, especially during the slow periods. If he takes a small loss on one car and turns over several the loss spread over the whole assortment is small, not only that but if the car was to be held pending a reactive high-priced market there is always the likelihood of a price drop in the new-car field.

That he gets rid of the cars without spending anything for reconditioning is a big item. Having sold the cars he has no further sales expense, which would not be the case if the cars were held in stock. And every month added to the age of a used car makes it that much harder to sell, as a general thing.

The proof of the pudding is that many dealers throughout the Shechtman territory do not bother to sell used cars. If they have something they want to get rid of the organization is as near as the telephone. One member of the firm is on the road all the time in quest of new car dealers' output of used stock and he is always welcome.

Practically all cars taken in come from new car dealers. Some of these dealers are remote from Hartford. The firm has built up a clientele and the fact that it will take the poor cars along with the good ones regardless of the season means the firm gets the best the dealers have to offer.

A Particular Boon

Here is one peculiar slant on the proposition. There is one dealer-customer of the firm who stresses the fact no used cars of the make he handles are to be had in the town in which he does business. This simple argument carries some weight, for the dealer is within the bounds of veracity when he makes that assertion. Shechtman gets those cars. Of course they are out of the field.

Some dealers do not try to sell used cars because they are doing business close to large cities of the state and it is the custom of the people in those communities to go to the larger cities in quest of used cars. Now then, here is the meat of the cocoanut. These dealers are forced by existing conditions to trade, but their outlet is very limited. Shechtman helps make a different story.

When the Hartford used-car broker takes in a car some member of the firm drives it. He inspects the car thoroughly and notes the condition and what should be done. Then the service manager takes the same car and puts it through the paces. The two compare notes. The car is then reconditioned in the brokerage shop and when the work is done another test is made. This is double-checked. Assured that the car is O. K. mechanically, the tires, body and sheet metal parts get attention. If the sheet metal parts are to be repaired the car is turned over to some of the local sheet metal workers. Then it is painted. The firm that does the painting has painted over 2000 cars for the broker in the past few years, in fact these jobs keep it busy. When the car comes back it is priced and placed in the showroom. When sold it is backed by a written guarantee. Over 500 cars

were sold last year. The business has increased from year to year. The firm asserts profit, not volume, is the idea in mind.

Experience has shown that price cuts on new cars do not seriously affect the reconditioned used cars. The poorer class of cars is generally sold "as is" to repairmen, shop mechanics and others who derive pleasure from making an old bus perform.

On the showroom floor are the latest models, not over two or three years old. The salesroom is on the main floor, the service department in the basement with a spacious outside entrance, the two upper floors being used for car storage.

It is significant that a change in location from a garage at the south end brought a different and better class of trade. Some of the best people of the town are regular customers. There are cases where owners buy a car, run it a year and come back for another, turning in the old one.

Many sales are made for cash, but the firm does not frown on a time deal. Forty per cent down-payment is required and the balance in 10 months. Many deals have been turned down because the buyer could not or would not pay down 40 per cent.

The firm carries its own paper and does not discount it at the bank. There are no finance charges, no red tape. Repossessions are nil. There are no legal complications. It has happened that buyers could not continue their payments and have voluntarily tendered the cars to settle the account. These are few.

Three brothers and a sister carry on the business established by the father. Harry H. Shechtman is the road man, a shrewd buyer but a fair one, and a keen appraiser. His services are frequently sought by insurance companies. Frequently a dealer will ask his appraisal for the benefit of a prospect.

A. A. Shechtman is manager of the Hartford branch and his brother, George J., manages the New Haven branch which opened four years ago and has continued along nicely through the years. The success in Hartford is apparently being repeated in New Haven.

As A. A. Shechtman expresses it, "Used cars are our bread and butter."

N. S. P. A. Standardized Catalog

The first section of the National Standard Parts Association standardized catalog and reference tables is off press and approximately 25,000 copies have been purchased by the Buckeye Brass & Mfg. Co., Cleveland. Their new catalog comprises about 72 pages of the most advanced bearing information.

Features of the catalog as issued by the Buckeye company include (1) the interchangeability of parts, with standardized stock numbers and a code word for each listed part; (2) economy in production and printing costs, and (3) simplification of the alphabetical and dimensional table making it considerably easier for the jobber to secure desired information. The uniformity in parts numbers gives a common basis for referring to parts, that will save both time and effort.

Other members of the N. S. P. A. have plans for publishing sections of the standardized catalog.

Why Not Add Mail Carriers to Your Sales Force?

Nash-Levy of Kansas City Did With 58 Varieties of Sales Letters to Aid Salesmen and Attributes Much of Its Success to the Cooperation of Uncle Sam's Faithful-to-the-Letter Army

By Ed Meisburger

HUNDREDS of selling organizations throughout the country use form letters as a basis for operations, but it has remained for Nash-Levy Motors of Kansas City, Mo., to develop an elaborate system of letters now considered a necessary adjunct to the institution.

Until two and a half years ago, Nash-Levy's salesmen depended entirely upon personal contact to sell motor cars. Many times the salesmen interviewed prospects at inopportune times—times when the press of business was so great that the attention of the prospects was hard to gain.

It was then that J. C. Clower, who was sales manager of the company at the time, began a study of form letters, direct-by-mail salesmanship, which would reach prospective Nash owners either at the home or in the early morning hours at the office, when other mail was being examined and before the day's activities had got under way.

Mr. Clower began in a modest way with some 20 letters, so arranged as to carry the proper message to the prospect at the psychological moment.

That service to salesmen (for as will be shown directly it is designed for the individual salesman's assistance) has grown until today George A. Wood, who is now sales manager, has in a neatly bound looseleaf index, a total of 58 letters—one for almost any prospect on any occasion.

The letters are highly personal in that they, in most instances, touch some specific question or present a sales argument from some type of prospect's angle, and therefore are valuable, for they save the trouble

LETTERS
PROSPECTS vary as to type and different direct-mail letters are required to make the most effective appeal to each type. Nash-Levy Motors made a study of this condition and devised a system to meet it that is explained in this story.

of individual dictation by salesmen familiar with their particular prospects, and furthermore make no demands on the salesmen to write high-powered business letters, the technique of which they only vaguely know.

The service has been added to from time to time in various ways. For instance, a salesman recently had a particular friend to whom he was trying to sell a Nash. The salesman wrote him six letters, friendly, intimate, personal messages as one friend to another. He made the sale.

The six letters now are in the form letter file, known as the "Dear Bill" letters, where they can be referred to by other salesmen, who have lined up similar prospects.

Included in the 58 letters are several other series of letters. One is for the man who has driven a Nash before. Another is for the driver of a small, less expensive car, another appeals to the man who has never driven a car. The women members of a prospect's family are assured in another direct-mail puller of the beauties and comforts of a Nash.

Then there are letters designed for certain individuals, one directed to the two-car family, a sport model booster message, a communication appealing to the motor tourist, in fact in the Nash-Levy collection there is a letter of proved merit for every prospective buyer of any Nash model.

"We have found the letters of inestimable value," both Melville Levy, president of the company, and Mr. Woods asserted. "We would not discontinue such a practice unless we desired to curtail our business. Our salesmen make use of the letters, in fact we require it. Each salesman is checked weekly as to the



number of letters he is using, and if he falls short of what we believe is the normal number, we request him to send out more direct-by-mail selling talk."

There are nine salesmen in the Nash-Levy organization and each man has prospects numbering from 25 to 60 on his list. A stenographer is kept busy addressing the form letters and envelopes to be mailed to each salesman's list.



Melville Levy, at right, is president of the Nash-Levy Motors of Kansas City, Mo. George A. Wood, left, sales manager, who puts his trust in sales letters

On floor days, once each week, the salesmen submit a list of prospects and the letters they desire sent to each, and the mailing dates of each.

Many of the letters, of course, are infrequently used. Those are not multigraphed, but the stenographer copies them on a typewriter, thus gaining a personal touch with the prospect. The letters infrequently used are generally turned loose upon a particularly stubborn prospect.

"And," said Mr. Wood, "I don't mind saying that in many cases we attribute to those well-worked-out letters our final success with the prospect."

The Nash-Levy company, like most other selling organizations, sends letters to buyers immediately following consummation of the sales.

"But," said Mr. Wood, "the unusual thing is to send letters to those who have been our prospects, but who buy other cars. We try to be good losers. We have received more favorable comment as the result of that letter than any other in our file. We tell them they have bought good cars, we wish them luck with their purchases and express a hope they will give us another chance sometime to convince them of Nash values."

Mr. Clower, to whom Mr. Wood and Mr. Levy give credit for establishing the form letter system, now is in the motor car business in Florida.

25 Letters Weekly Per Salesman

Mr. Wood was assistant sales manager under Mr. Clower and has carried on and expanded his policies as to the letter writing end of the automobile selling business.

"I do not know what the exact figure is on the average number of letters sent out each week by our salesmen," said Mr. Levy, "but I do know it could not be too many."

Mr. Wood estimated the number at 25 or 30 for each of the nine salesmen, which swells the Kansas City postal receipts somewhat over a year's period, even as it increases the Nash-Levy volume.

In addition, the company at intervals circularizes motor car owners of the city from a mailing list ob-

tained from the motor license bureau. Nash literature is included in the envelope with a letter inviting the recipient to investigate the Nash before he buys another motor car.

Another modern sales method employed by Nash-Levy is the quota board, which has been in operation in the sales meeting room for almost two years. On the board, statistics of the number of calls, number of telephone calls, number of prospects and total sales for each day of the year, are chronicled. The figures are transferred to each salesman's work-sheet and, at the end of any given period, Mr. Wood is able to inform the salesman, not only of his sales, but of the number of attempts at sales he has made during the year. Thus a batting average is possible.

The Nash-Levy Company is a firm believer in sales letters, and, as Mr. Wood put it, they have added some 500 mail carriers to their sales force.

Refinements are Embodied in Graham Bros. Engine

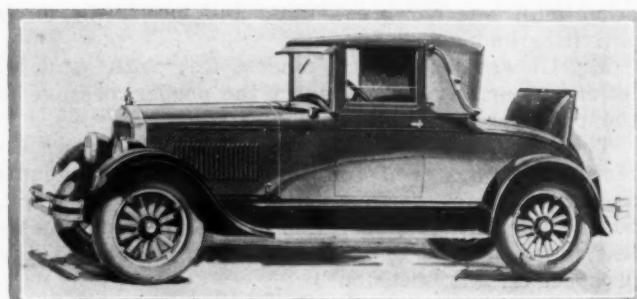
THE Graham Bros. trucks, manufactured by Dodge Bros., Inc., are now equipped with an engine that embodies many refinements over the engine previously used.

Increased power has been obtained principally through the use of a newly designed intake manifold, a section of which is heated by the exhaust gases. Also, the combustion chamber is of different shape. Vibration has been reduced to the minimum by careful balancing and by the use of unusually heavy engine supports. A single plate clutch, together with a heavy-duty clutch type transmission, is now employed. The new engine has exceptionally clean lines with the water pump placed at the rear of the cylinder block and the distributor above the engine.

New Star Six Cabriolet Lists at \$915

THE latest addition to the Star line is the six-cylinder cabriolet with a fully collapsible top. This makes it possible to change the car from a closed coupe to an open roadster in about two minutes time. The rumble seat gives this new model capacity for four passengers. This car is equipped with heavy natural wood wheels and full balloon tires. Other equipment and appointments include bullet type head and cowl lights; large walnut steering wheel, spare tire and cover, ornamental motometer, snubbers on the front and front bumper and rear bumperettes.

This model lists at \$915.



The six-cylinder Star cabriolet with the collapsible top up, and showing the rumble seat which increases passenger capacity. The list price is \$915

Jordan Announces Chassis Details of Custom Model



This close-coupled, four-passenger sport salon lists, as do all models of the Custom Jordan, at \$1,595. It is equipped with a trunk and wood wheels as standard, wire wheels being provided at extra cost

By Athel F. Denham

FOR the past two years there has been a good deal of discussion in this country of the European type car. Interest in the advent of such a car has probably been caused largely by the need for smaller cars, to cope with the crowded traffic conditions in the larger cities, difficulties in parking and economy of operation. That the strictly European type is not applicable to motoring conditions in the United States is now generally admitted. The American public has come to demand a quality of performance that is not obtainable in the smaller foreign units.

To meet the demand for a smaller car in this country and still to furnish the riding qualities and performance which the American motoring public has come to expect, the Jordan Motor Car Co. developed a car, "The Custom Jordan," which was described briefly in *MOTOR AGE*, coincident with the first showing of this model at the New York Automobile Show. Delays in obtaining bodies, etc., however, prevented the Jordan Motor Car Co. from getting into active production on this model until the past month. With active production more details are now obtainable.

To begin, the car has a wheelbase of only 107 in. Whereas during the past few years a long wheelbase has been a big selling argument, Mr. Jordan and his engineers began with the assumption that it was possible to build a quality car on a short wheelbase. That they have succeeded in embodying in this car head room, leg room and riding qualities which leave nothing to be desired, all on a wheelbase of 107 in., is evident to anyone who rides in the car.

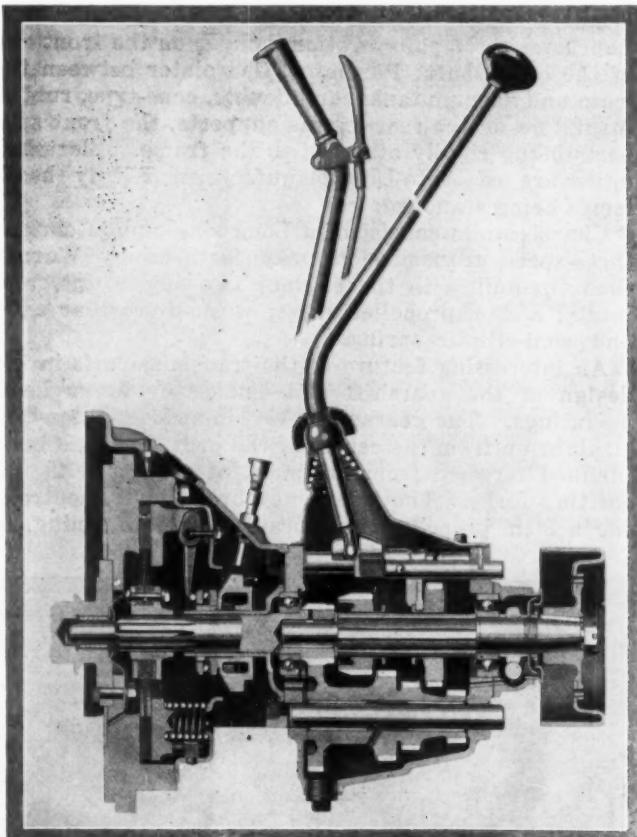
In Mr. Jordan's own words: "We are trying to make the wheelbase just as short as possible, and we are using a six-cylinder engine because it is shorter than a straight eight." Turning radius of the car is only 17½ ft., facilitating parking.

In designing the Custom Jordan, designated as the Model R, certain other fundamentals have been kept in mind. There has been no effort made to build a car which would compete on a price basis with cars of similar wheelbase. Second-hand valuation has

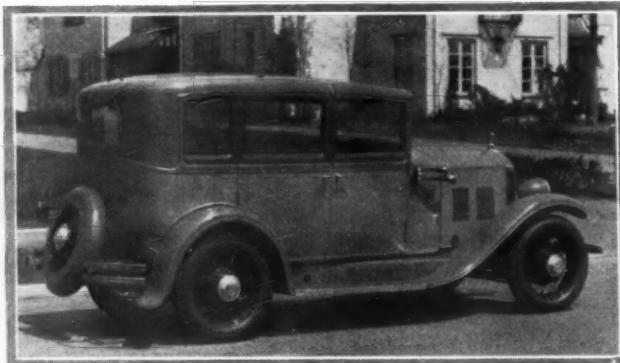
been a major consideration, Mr. Jordan saying, "second-hand valuation will determine whether manufacturers will stay in business." The Model R for this reason has been designed

to have as long a life as possible and materials used in the car were chosen from this point of view. In building a quality car of this type, Mr. Jordan believes that a good portion of the dealer's trade-in problems will be eliminated. By giving him a car which will give him a sufficient profit to enable him to prosper on the basis of "profits per unit" rather than in volume sales, the dealer is enabled to practically pick his own trade. He is not forced to take "any old piece of iron" in exchange.

As mentioned above, a six-cylinder engine is used in the Model R. It is built by Continental and has a bore and stroke of 3½ and 4 in., respectively, devel-



This sectional picture of the transmission shows the novel location of the gearshift lever. Note convenient location of clutch throw out bearing oiler



Full width doors are provided on this Custom Jordan five-passenger sedan. Shipping weight is in the neighborhood of 2700 lb.

oping approximately 60 hp. at 3000 r.p.m., with a displacement of 199 cu. in., representing the highest powered car of its size in the country. By using a compression ratio of 5.1 to one, moreover, economy of fuel consumption is obtained, this ranging from 18 to 20 miles to the gallon, according to Jordan officials.

Characteristics of the L-head are: Integral cast-iron crankcase and cylinder block, with pressed steel oil pan; aluminum Nelson type pistons, seven-bearing, $2\frac{1}{8}$ in. crankshaft, and $1\frac{1}{8}$ in. crankpin journals, with spun in connecting rod bearings; four-bearing cam-shaft, Link-Belt front-end drive with manual adjustment; lubrication by pressure to main, connecting rod and camshaft bearings; fan-belt-driven water pump, with a six-bladed fan and 3-gal. radiator; built-in air cleaner; $1\frac{1}{4}$ in. Stromberg vertical outlet carburetor; Lancaster torsional vibration damper on the front end of the crankshaft; Purolator, Gascolator between the main and vacuum tanks, and double, cone-type, rubber insulators on the rear engine supports, the front supports being rigidly attached to the frame. Electrical units are of Auto-Lite manufacture, Tilray headlamps being standard.

Chassis units consist of a Long single-plate clutch; three-speed transmission, manufactured by Warner Gear, in unit with the engine; two spicer universal joints; a 2-in. propeller shaft; worm-drive rear axle, and semi-elliptic springs.

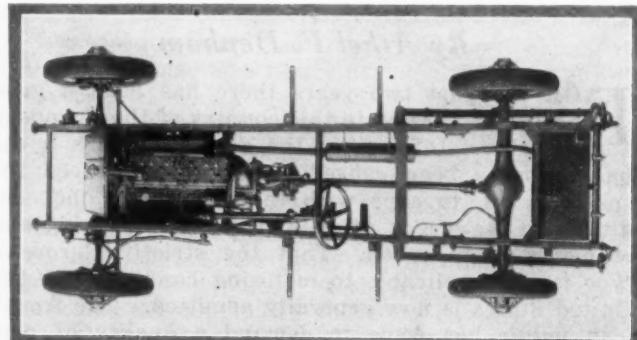
An interesting feature of the transmission is in the design of the gearshift and emergency brake lever mountings. The gearshift lever, instead of extending straight up from the center of the gear case, has been inclined forward from the point of contact with the shifting forks. The emergency brake lever, controlling a 6 in. propeller shaft brake with 2 in. lining, is

mounted at the very front of the transmission case, and at its lowest corner. This design has enabled the increase of clearance in the front compartment of the car between the seats and the levers, to facilitate entrance to the driver's seat from the curb side.

The use of worm-drive rear axle in this size of car also represents a rather striking departure from customary American practice. The worm is mounted below the differential case, and with the use of a double drop frame, and 18 in. wheels with 28 by 5.25 balloon tires, has resulted in an exceedingly low body. Overall body height is only 5 ft. 9 in. yet there is ample head room to spare inside the car for six-footers. That this has not been achieved merely by lowering the seats down to the floor level is evidenced by the fact that there is also ample leg room.

A feature of the Columbia rear axle design in itself is in the use of a large number of roller bearings. Nine are used in all, consisting of two Timken opposed taper roller bearings at each wheel, two of the same on the rear end of the worm shaft, with a Hyatt roller bearing at the front end, and a Timken taper at each side of the differential housing.

Springs are unusually long. In fact not a single

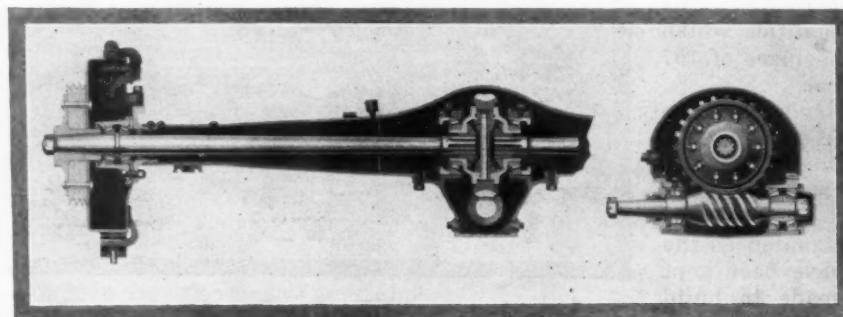


A bird's-eye view of the Custom Jordan chassis

car under 120 in. in wheelbase has longer rear springs, and only one has springs of an equal length. Moreover, chrome vanadium steel has been used for both front and rear springs, which are 36 and $55\frac{1}{4}$ in. long respectively, and 2 in. wide. Rear springs are mounted outside the frame, the front spring bracket being attached directly opposite a frame cross-member to reduce twisting stresses in the frame, while the rear bracket strain is also taken up by the rear tubular cross member. There are seven cross-members in all, three of which are tubular, and four of the gusseted pressed steel type, including the rear engine support member.

There are a number of other features in the chassis construction which are not found on cars of this size.

For instance, the muffler is mounted on individual brackets from the frame side member, with clamp bands between the muffler heads instead of at the ends, while the muffler itself is built up of two metal sheets with an intermediate asbestos lining to reduce vibration and noise, and to make it more sturdy. Spring shackles are provided with automatic spring controlled take-up. Four wheel external contracting 12-in. Lockheed hydraulic brakes are used for service braking.



The Custom Jordan rear axle sectional view showing worm drive details



The two to four-passenger Tomboy is of the convertible coupe type. The rumble seat is operated by a lever in back of the front compartment seat.

The same idea of quality construction had been carried out in the bodies. These are of composite construction, with metal doors and pillars and wood frame work for the rear quarter. Not only is a cowl ventilator provided, but an air passage between the

instrument panel and the dash, similar to that used in connection with the Fisher VV windshields, is also used, in combination with a swinging type windshield. Toe boards are of cast aluminum.

From the equipment angle, such features are found as Fedco numbering system plates, Nagel electric gasoline gage, Sterling electric clock, Moto Meter on the radiator, arm rests in the closed car rear quarters, adjustable foot rests, Houdaille shock absorbers all around, Biflex front bumper and rear bumperettes (at extra cost), Hershey coincidental steering gear lock with separate switch for locking ignition without locking the gear, combination stop and tail-light, indirect lighting of the instrument panel with separate switch for instrument light, Sparton French chime horn, with motor-driven air compressor, and double filament bulbs.

It is rather difficult to discuss performance on paper. However, it should be possible for the average driver to maintain a speed of from 50 to 55 m.p.h. all day long on fair roads without undue fatigue. Top speed is a good 65 m.p.h.

A Good Bookkeeping System is the Most Important Tool in Your Business

(Continued from page 26)

while I could not afford to pay over \$50 for rent. I don't see, Mr. Jones, how I can explain this matter of business expense in any other way that would make it clearer to you. If I could, I certainly would."

"Well," said Jones to Robinson, "I don't think anybody will ever have to teach me that little lesson again. I've got that one stored away for keeps. How about you, old timer," he asked the bookkeeper.

The bookkeeper smiled and said, "Same here, Mr. Jones."

"All right, we are getting along fine," said the auditor. "Now here's another point I'd like to talk about for a minute. Do you know that most of the big business firms nowadays don't wait until the end of the month or until the end of the year to see where they are going or have gone? What they do is to make a budget at the beginning of the year, setting down what they expect their sales to be for the year, the amount of cost of sales, the amount for each item of expense and the total profit. Then they take this budget for the year and split it up by months. At the end of each month when the actual figures are completed, they compare the budget figures with the actual results. When the actual amount for any item is out of line with the budget, immediate action is taken by the management as the circumstances may warrant. Under this plan the operation of the business is kept under definite control at all times."

"Now, Mr. Jones, your business can be handled under a budget plan, and perhaps with even better results than for a very large business. For you are closer to the actual operations that are happening every day and have a more intimate knowledge of the details than can possibly be had by the person or persons looking after the budget for a large concern."

"That certainly sounds reasonable," said Jones.

"Then there is no better time to start than right now," said the auditor. After considerable discussion

the auditor said, "Here, Mr. Jones, are the budget figures I would recommend for your business for the year starting with the first of next month."

And the auditor handed Jones the figures shown below:

	Per Cent
	To Sales
Sales, Profit and Loss	
Sales	\$90,000
Cost of sales	62,000
	<hr/>
Gross profit	\$28,000
Expense	21,000
	<hr/>
Net profit	\$7,000
	7.78
Average Amount of Investment	
Cash	\$3,500
Accounts receivable	8,000
Inventory	23,000
Machinery and equipment	5,000
Misc. other items	500

"Now, Mr. Jones," continued the Auditor, "With a net profit of \$7,000 for the year on an average investment of \$40,000, your return on the amount of your investment would be 17.50 per cent. How does this look to you?"

"What do you think, Tom?" Jones asked the bookkeeper.

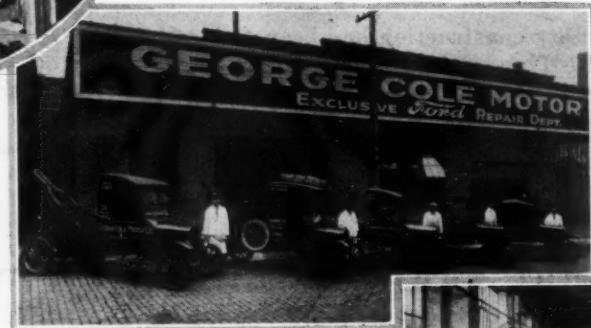
"Well, Mr. Jones, I'll tell you," said the bookkeeper enthusiastically, "If you'll back me up in keeping our inventory down, allow me to collect our accounts when they're due and help me keep our expense down to the figures shown in this budget, I feel sure we can come pretty close to the figures Mr. Robinson has given us to shoot at."

"Well, Mr. Jones," said Robinson, "we have brought a lot of things to the surface by digging into the details in this way, but I feel pretty sure you will agree that they are things you wanted to know. When you are not getting the results from your business that you have a right to expect it certainly pays to find out where the trouble is, doesn't it?"

Building a \$2,000,000 in Two and



Above—The parts department of the George Cole Motor Co., Nashville, is arranged for the type of service that pleases customers



Left—Five wrecking cars contribute their share to making the service department show big returns

WITH a contract for 25 cars a month the George Cole Motor Co. of Nashville, Tenn., opened for business a few years ago. In the first month the firm sold 99 Ford cars in spite of heavy competition. That was not just a streak of luck—the continued growth of the business to a two-million-dollar annual turnover within two and one-half years is sufficient evidence that the established policies of the company were right from the outset.

Last year the total sales of all Ford products amounted to no less than \$2,081,509. With a parts stock worth \$35,000, the parts sales for the year totaled \$280,000. Tractor sales accounted for \$97,000 and the implements to use with them \$101,000. Used cars netted \$354,000, most of these being Fords and Lincolns. At the present time the output is around 300 new and used units per month.

This, it will be recognized, is no mean accomplishment in one Tennessee county and in a city of 160,000 population. Behind it is honesty of purpose, backed by a thorough knowledge of the business. Every man connected with the Cole organization knows the Ford products from every angle and no salesman goes out or on the floor until he has spent a set period in the shops and knows the whys and wherefores of the mechanical details.

Much of the business is now repeat orders. George Cole, the owner and general manager, himself sells between 500 and 600 cars a year over the telephone. This condition is due solely to the established reputation of the company for an intense desire to insure that every buyer gets the maximum of service from his car at a minimum of cost. And this reputation is firmly founded.

Responsible only to the general manager is an inspector who checks over every car that is sold. This inspector completes a special inspection form for each car, and that car must be absolutely right if the inspector is to keep his job. When the form is completed it is signed and a special red seal is attached to the car radiator. The presence of that red seal indicates that the machine is in as perfect condition as the George Cole Motor Co. can make it.

Since the inauguration of this system, comebacks

Right — The service shop is well lighted and modernly equipped to turn out good jobs and turn them out speedily



during the guarantee period have been practically eliminated. It insures customer satisfaction and saves the dealer a lot of money.

Another service feature that has proved of considerable value in building good will is the keeping of the repair and parts departments open day and night. Every kind of repair and replacement can be effected at any hour. During the 9-hour day shift there are 47 mechanics employed, but for the night shift there are only 12 men. In the parts department, however, seven men are kept at all hours.

After expiry of the guarantee period close contact is maintained with the customers by means of letters and personal calls by the service salesman. The customers are, however, by no means ignored during the first 90 days. Soon after delivery of the car a letter is sent expressing appreciation for the business, and calling attention to the service facilities offered. Incidentally, on the back of the salesmen's calling cards appears a list of 36 inspections and repairs that come under the head of free service.

At the end of 85 days a special letter is sent out, together with an inspection form which the customer is asked to bring in with his car, before the 90 days expire. This covers the guarantee service.

After that the service business is up to the service salesman, backed by extensive advertising. Newspapers, billboards, street cars, and direct mail mediums are

Business a Half Years

"We Know We Know Fords" is Slogan of George Cole Motor Co., Nashville, and Accomplishments Prove the Company Not Only Knows Fords But How to Keep Customers Satisfied

By H. LIONEL WILLIAMS

George Cole,
President



Above—Where the George Cole Motor Co. does its \$2,000,000 business. "We Know We Know Fords" is the firm's slogan and the electric sign keeps the public reminded

used, but no fixed appropriation is made. Business-getting activities are governed by conditions in the service department, so that there is very little fluctuation and it is practically never necessary to lay off any of the mechanical staff.

All repairs are subject to flat rate charges for labor with material as extra. The mechanics, however, are paid hourly wages. In all repair work the customer is protected against undue expense by a special inspector working with the service superintendent and foremen. This inspector examines every part as it is removed and determines whether it is to be scrapped or not. As George Cole says, anyone can repair by scrapping and replacing. It takes more trouble to inspect and measure up the parts and decide whether they are to

be used again or not, but that is what makes satisfied customers, any company's biggest asset.

For outside service four wreckers and three service cars are maintained.

Service as a business-getting feature so often proves a charge on the rest of the business that it is refreshing to come across an example of a business based on service that makes money in the service department. With sales in all departments last year of over 3500 units, the George Cole Motor Co. sold no less than \$90,000 worth of service labor.

These are some of the things that have contributed to make the George Cole business the success it is, and justified in the public mind the company's slogan—"We Know We Know Fords."



The new home of the Triangle Tire Co., Seattle, is located at a street intersection and is laid out to attract attention

In Building SUCCESS *First*

Build a Successful BUILDING

THE alert merchant never overlooks anything that will promote his purpose in business—to sell. These efforts are generally confined to the human element and its relation to the public. In other words, salesmanship more often revolves about the personal contact between buyer and seller. In recent years the display window and show case have come into their own as silent though efficient salesmen.

The Triangle Tire Co., Inc., Seattle, Wash., has gone a step further in broadening the scope of merchandising. Its newly constructed plant was not designed merely from the standpoint of architectural beauty, convenience and comfort, but these were ingeniously combined with features intended primarily to stimulate the sale of tires and service. The building in its entirety may be regarded as a giant display window or show case, for both the exterior and interior are so designed as to give the public a complete view from the outside of practically all merchandise sold, service operations and equipment. Thus the building may be said to be the best salesman on the staff.

The result is unusual in its originality. Ten years of success in the tire business has given the firm many tried and true ideas in merchandising and service, and these have been embodied in the structure just completed.

The new building with its stock of Corduroy Cord tires and complete equipment for vulcanizing, retreading and repairing tires, represents an investment of \$100,000. It has a frontage of 156 ft. on Stewart Street

SHOW 'EM

What you've got is one of the three commandments of the Triangle Tire Co., Seattle. That is why its new \$100,000 shop was designed to act as a mute but ever-active, customer-attracting salesman. There's profit in the idea.

and 114 ft. on Eastlake, at the junction of these two arterial highways, about one-half mile from the downtown district, and a floor capacity estimated at 12,000 sq. ft. There is sufficient room along the curb and in the outside foyer for the servicing of 20 cars at one time. The building is of masonry and steel construction, with interior and exterior finish of California stucco. The exterior stucco is of green dashed with ivory. The roof is of tile.

Viewed from the outside the building has many distinctive features. Most conspicuous, perhaps, is the open foyer in front. Here is located a modern gasoline and oil service station, with Bowser equipment throughout. All pumps are automatically operated by air, and the inlets to the gasoline tanks are located at the curb, keeping gasoline trucks outside the foyer. Included in the equipment is a 500-gal. automatic oil fountain, dispensing eight kinds of oil. The oil storage tanks are located in the basement under the main structure, and each tank has a gage which permits an inventory of the oil stock to be taken in less than five minutes.

But from the merchandising angle other features of the exterior are even more pertinent. A first impression is that the four walls are almost entirely of glass, which is literally true, and with a purpose. From the Stewart Street side the spectator looks through plate glass windows into the service department and sees the mechanics at work, either on the 12 Western Dri-Kure vulcanizing molds or the Weaver and Kehawkee tire equipment. Every operation is in full view of the pass-

ing motorist, a silent but eloquent reminder, perhaps, of a tire that needs repairing. Then there is something fascinating about mechanics at work, witness the passers-by who stop and watch operations. Of course, they get a better conception of what tire repairing involves, and what modern methods can do in rehabilitating the rubber on motor vehicles. They become more intelligent, and consequently better customers. The tire merchant who relegates his repair shop to the alley is missing a lot of good, free advertising.

The second story likewise is a solid row of plate glass windows, where may be seen piles of tires, neatly arranged. Seven carloads thus may be displayed at one time, according to W. L. Fitzpatrick, president and manager. An imposing sight that attracts attention from blocks around. At night flood-lights play on these windows from within, which further increases the advertising value of the display. Here the first step, at least, of the merchandising slogan, "Show them, tell them, sell them," has been utilized to the fullest extent. No one likes to buy from depleted stocks, and if the major stock is stowed in the basement, the effect is the same. Mr. Fitzpatrick believes in showing all of his wares, all at one time.

This is further evidenced upon entering the building. The tire display room on the second floor is in the form of a balcony. The center is open to the roof, and the well-filled tire racks behind the iron railing are visible from all points on the main floor.

Plate glass windows also give an unobstructed view

of the tire repair shop from the interior. There is an original "wrinkle" in the shop that is worth passing on. Repair material, such as fabrics and cords, comes in long rolls, often unwieldy. This firm conceived the idea of placing this material in a large rack, 10 ft. by 6 ft. and about 12 in. deep. This rack is equipped with steel rods which fit into slots on the sides, very much like the rod in a towel rack. The material is unrolled as used, is always out of the way, and protected from dust and dirt by a rolling window shade.

Instead of using the basement for stock storage purposes, this firm has reserved this space as a garage for customers, who, unable or unwilling to wait for tire repair work, leave their cars and pick them up later. This service is facilitated by an hydraulic elevator.

The president's office, located near the front, affords him a view of activities inside and out.

"I find this very important," said Mr. Fitzpatrick, "for from this vantage point, I am able to nod a greeting to, or have a word with old customers, which maintains the personal touch so essential to continued good will."

Everything in the building is complete and up-to-the-minute, and all topped off with a 275-bulb electric sign with 3-ft. letters, which automatically flashes before the public this landmark of progress in the tire industry—"Triangle Tire Co."

Good merchandising includes more than personal salesmanship; even the design of a building can be made into a potent sales factor.

Putting the Windsor Plan Into Operation

(Continued from page 31)

proceeds of the show plus money raised by assessing each member \$100."

Asked to venture an opinion on the idea of having a central committee compile and adjust prices to run in the advertisements, instead of leaving this detail up to each individual member, Mr. Easton said it was his understanding that such a plan has been tried out but experience has proved that the idea of letting each dealer set the price of his own line of cars is most satisfactory. In the first place it is often difficult to get a committee to function properly, and secondly, each individual dealer is in a better position to know the value of his own product. In large cities where there is a group of dealers handling one make of car, Mr. Easton expressed the opinion that they should make some arrangement to get together and decide the prices of their line, or else leave this detail up to some one particular dealer.

In most of the cities where dealers are using the plan, the advertisements are being run in the newspapers under the caption "Used Car Buyers Guide," and do not include the names of dealers or the association. Toledo is one of the cities which has deviated from this. Dealers there seem to have hit upon an excellent idea of having the advertisements appear under the auspices of the Better Business Bureau as a means of further assuring the public of the authenticity of the information.

The Canadian cities which are reported to be using the Windsor Plan are: Sherbrook, Ottawa, Montreal, Quebec City, Toronto, Hamilton, Brantford, London, Chatham, Windsor, Winnipeg, Saskatoon, Regina, Vancouver and Victoria. The Counsel of Motor Agents Association, of London, Eng., is also using it.

Among the cities of the United States using the plan

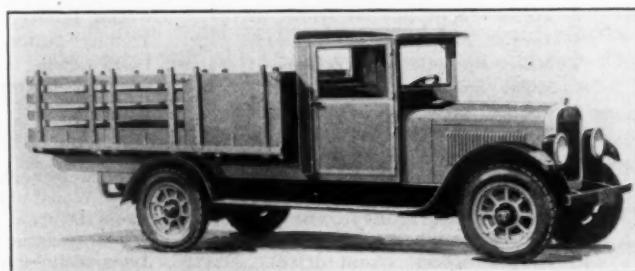
are: Toledo, Des Moines, Minneapolis, Rochester, N. Y., Milwaukee, Louisville, Indianapolis, St. Louis, Buffalo, Fort Wayne, Little Rock, Akron and Ottumwa, Iowa, while many others are reported to be about ready to adopt it.

Reo Brings Out New Speedwagons

REO MOTOR CAR CO. has announced a complete new line of Speedwagons which are designed to meet transportation requirements of every business. The new line includes capacities to handle loads ranging from 1000 lb. to 6000 lb., and has wheelbases ranging from 114 in. to 175 in.

The first model introduced is on a 133-in. wheelbase with chassis rated at 1½ tons. The six-cylinder engine with 3 3/16 in. bore by 5 in. stroke develops 50 hp. at 2000 r.p.m. This gives the new model exceptional power and speed. To make the most of the speed qualities of this truck with safety, four-wheel, internal-expanding brakes are used. The cab is said to have all the comforts and conveniences of a coupe.

Two body styles are available on this Master Speedwagon—a 9-ft. stake body which with closed cab is priced at \$1,620, and cab with express body is priced at \$1,580.



New 1 1/2-ton Reo Speedwagon

Tabulated List of Pit Stops at Indianapolis Sweepstakes

THAT many and varied troubles beset the cars that competed in the recent Indianapolis 500-mile race is evident from an examination of the tabulated list of pit stops. The reader will note that several spark plugs were changed during the race but these changes should not be construed as due to faults in the plugs proper because in many cases these are removed and changed to determine by their condition other existent troubles in the engine.

Attention is called to the many stops for relief drivers and the many cases of troubles due to failure of chassis parts other than the engine. To the veteran observer it was evident that with one or two exceptions the pit work this year was not as speedy as in 1924 and 1925.

Car No.	Lap No.	Cause of Stop	Time lost (min.-sec.)
1	38	Broken crankshaft key	Out
2	81	Oil, gas, water, LR & RR tire	1:37
	120	Connecting rod broken	Out
3	31	Broken supercharger gears	Out
4	26	Rear spring shackle bolt frozen	Out
5	38	Boost Oil pressure. Water, Oil.	5:30
	53	8 plugs, gas, relieved by Frame.	5:05
	70	Consultation about oil pressure	0:50
	78	Oil.	1:30
101		Water, Gas, Oil; relieved by Elliott	3:03
127		Fasten gearshift in high position	3:35
165		Gas, Oil	2:45
(4:52 P. M.)		Supercharger trouble	1:00
6	81	RF & RR tire; water, gas, oil; relieved by Duray	4:30
	106	Relieved by G. Van Ranst; gas	1:00

Car No.	Lap No.	Cause of Stop	Time lost (min.-sec.)
	122	Relieved by Hepburn; repair inlet manifold; gas	4:00
7	142	Tape Inlet manifold; water	5:00
	21	Broken spring pad on front axle	Out
8	24	Car caught fire	Out
9	99	Gas, oil, water, RR tire, relieved by B. Hill	8:30
	109	Relieved by Hartz	1:15
	123	Bent front axle	Out
10	45	RR Tire	0:24
	52	Adjust oil pressure, gas, oil	3:15
	96	Gas, oil, relieved by Zeke Myers	1:17
	151	Water, gas, oil, RR tire; relieved by Devore	1:47
	26	Leaking gasoline tank	Out
	113	Gas, oil, water, RF tire; relieved by DePaolo	2:50
	149	RR tire, 8 plugs, water, supercharger	2:55
	69	Tape inlet manifold; RF & RR tire, oil, gas, water	7:25
	79	Change eight plugs, repair inlet manifold, water; relief	8:18
	108	Broken supercharger	Out
	46	Gas, RR tire. Relieved by Hartz	1:50
	?	Oil. Relieved by Hearne	1:20
	?	Gas. Relieved by Duray	2:20
	131	Duray relieved by Vail	0:48
	152	Gas. Relieved by Hearne	1:10
	2	Dirt on carburetor float valve	1:40
	55	Tighten oil connections. Oil	4:40
	83	Broken valve and cylinder	Out
	25	Hit wall on north turn	Out
	24	RR tire	0:33
	40	Leaking gasoline tank	Out
	56	Gas, oil. Relieved by Nemish	1:03

Cars and Drivers Participating at Indianapolis Race

No.	Car	Driver	No.	Car	Driver
1	Erskine Miller Special (front drive)....	Harry Hartz	19	Boyle Valve Special.....	Ralph Hepburn
2	Perfect Circle Miller Special.....	Frank Lockhart	21	Duesenberg Special	Dave Evans
3	Perfect Circle Miller Spec. (fr. dr.)....	Peter DePaolo	22	Boyle Valve Special	Jack Petticord
4	Cooper Special (front drive).....	Bennet Hill	23	Elgin Piston Pin Special	Fred Leckleider
5	Junior Eight Special (front drive)....	Frank Elliott	24	Perfect Circle Duesenberg	Benny Shoaff
6	Detroit Special (front drive).....	Tommy Milton	25	Miller Special	Cliff Bergere
7	Miller Special (front drive).....	Dave Lewis	26	Miller Special	Chas. Bauman
8	Miller Special	Norman Batten	27	Miller Special	Anthony Gulotta
9	Cooper Special (front drive).....	Peter Kreis	29	Jynx Special	Wilbur Shaw
10	Miller Special	Earl Devore	31	Miller Special	Fred Frane
12	Miller Special (front drive).....	Leon Duray	32	Duesenberg Special	George Souders
14	Cooper Special (front drive).....	Bob McDonogh	35	Miller Special	Al Cotey
15	Boyle Valve Special.....	Cliff Woodbury	38	Duesenberg Special	Babe Stapp
16	Miller Special	Eddie Hearne	41	Thompson Valve Duesenberg.....	Wade Morton
17	Miller Special	W. E. Shattuc	42	Nickel Plate Special.....	Jimmy Hill
18	Cooper Special (front drive).....	Jules Ellinbogee	43	Miller Special	Louis Schneider
			44	Miller Special	Al Melcher

Car No.	Lap No.	Cause of Stop	Time lost (min.-sec.)	Car No.	Lap No.	Cause of Stop	Time lost (min.-sec.)
22	81	LR tire. Relieved by Evans	0:38	23	??	Relieved by Fernic	??
	151	Gas, oil. LR tire	2:36		132	Relieved by Abell. Oil	4:30
	18	Changed eight plugs	3:00		134	Leaking gas tank cap	???
	19	Changed two plugs	2:50		136	Change eight plugs. Tighten blower bolts. New bolt in inlet manifold. Relieved by Fernic	6:00
23	20	Checked valves and six plugs	5:00	24	32	RR tire, gas, oil, change goggles	1:47
	22	Broken supercharger	Out		82	Gas, RR & RF tires	1:37
	16	Relieved by Kohlert	0:30		160	Gas, oil. Relieved by Burbach	3:30
24	??	At pits for instructions	0:20	25	35	Gas, oil. Relieved by Burbach	Out
	48	Hit south wall	Out		62	Gas. Broken universal joint	Out
25	68	Relieved by Stapp	0:51	25	38	Gas. Broken universal joint	Out
	104	Gas, oil, RF tire. Relieved by Shoaff	1:54		41	Gas. Relieved by Ralph Holmes	1:13
	172	Gas. Relieved by Stapp	0:31		64	Relieved by Winnai	1:18
25	198	Broken rear axle drive gears	Out		121	Gas, oil, RR tire	1:49
	58	Collision, resulting in broken radiator hose. Oil, RF&LF wheels	10:12		132	Lost gas tank cap. Relieved by Morton	0:40
25	95	Relieved by Crawford. Gas, oil, water	3:10	25	140	Leaking gas tank cap. Relieved by Holmes	1:01
	108	Adjust carburetor. Relieved by Bergere	1:30		146	Gas tank cap leaking	0:35
25	109	Tighten shock absorbers. Change eight plugs	7:20	25	151	Hit wall	Out
	115	Adjust carburetor	1:10		42	Relieved by Ostrander	0:35
25	116	Adjust carburetor	0:30		29	Changed eight spark plugs	4:15
	119	Tighten body bolts. Change eight plugs	7:20		52	Gas, oil, RR tire. Relieved by J. Hill	2:30
(3:48 P. M.)		Tighten camshaft housing. Adjust brakes. Tighten body bolts	??	25	87	Relieved by Ostrander	0:25
(4:38 P. M.)		Relieved by Crawford	0:31		115	Relieved by J. Hill	0:15
(5:32 P. M.)		Relieved by Bergere. Oil	1:10	25	43	Consultation	0:02
26	91	Broken pinion shaft	Out		51	Conference	0:35
	85	Gas, water, oil. RR tire. Relieved by DePaolo	5:20		97	Relieved by Corum	3:00
27	92	Relieved by Gulotta	0:11		98	Relieved by Schneider	0:45
	166	Water, gas, oil. RR tire	2:34	25	125	Gas, oil, RR tire. Relieved by Bauman	2:05
29	2	Gas, oil, RR tire. Gas tank strap cut off. Relieved by Lewis Meyer	1:30		137	Broken timing gears	Out
	129	Gas, oil, water. Relieved by Shaw	1:40		44	Gas, LF tire. Relieved by Pet-ticord	1:20
31	5	Relieved by Fernic	1:35		56	RF tire	0:20
	71	???	??		69	Carburetor throttle sticking.	
	79	Water, gas, oil. Relieved by Abell	1:48		129	Gas, oil, water, LF tire	0:49
					144	Stop for instructions	0:44
					145	RR tire. Relieved by Leck-lider	1:07
						Broken supercharger	Out

Flat Rate and Shop Equipment

(Continued from page 29)

wheel brake system the collection of road dirt on the brake parts, while undesirable, was not so serious as it is today.

A high-pressure washing installation is able to remove grit and grease that could not be reached with the old hand methods. The removal of this dirt before it works into the different parts of the car is vital in several ways. If allowed to accumulate, this material may so jam the brake levers that the car becomes unsafe. At least, it is impossible to equalize the brakes if all parts do not move freely. Brakes that are not equalized are a menace, as the stopping distance of the car is increased. Tire wear also is accelerated.

Naturally, the average car owner can be made to see the wisdom and economy of having his car regularly washed with a high pressure washing outfit, and the possession of such equipment opens up the way to nice profits.

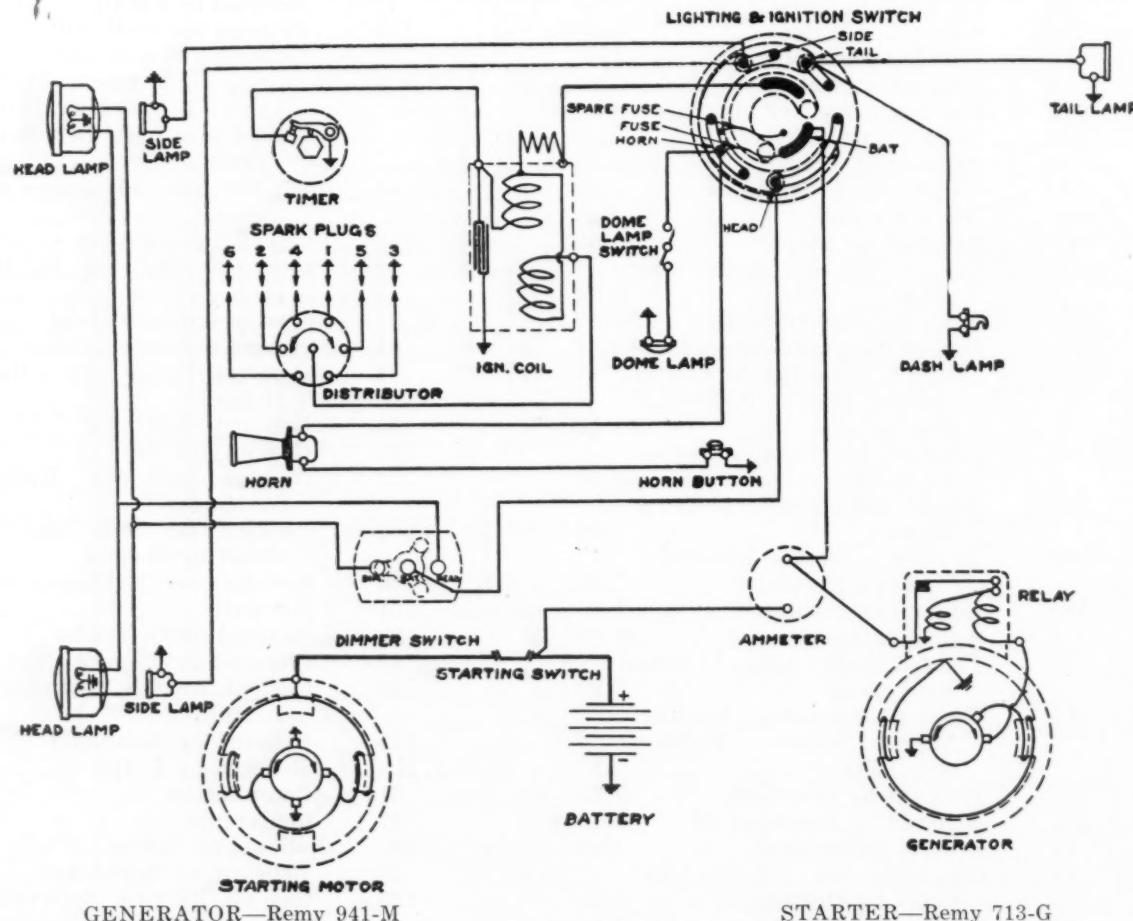
It rests largely with the shop operator whether he

will struggle along undertooled, charging by the hour to "break" on each job, or whether he will tool up, speed up, and turn out the work that holds customers and makes a fair profit.

It takes a fair price on your work to hold old customers and to attract new ones. If your price is too high you lose trade. If your price is too low you lose money. Only with proper equipment can one hope to hold the selling price down and still show a profit.

Your men must be amply repaid for their efforts or their work will not be up to what it should be. Good hourly rates are all right as far as they go—but they don't go far enough. It requires a little extra incentive in money to get the most out of a man. A flat rate plan, a bonus system, or some way of fattening the pay envelope in proportion to good work turned out in proper quantities is needed. Such plans have been discussed in detail in MOTOR AGE before. The intelligent application of them plus the use of the right shop equipment is doing much to attract and hold good mechanics who can turn out work at a profit.

Electrical Data on Oakland 1926, Model 6-54-C



GENERATOR—Remy 941-M

Rotation clockwise from drive end.
Performance Data:

Output at 775 r.p.m.—7 amps. at 7 to 7.3 volts.
Maximum Cold Output—17 amps. at 8.15 volts, 1400 r.p.m.
Maximum Hot Output—14 amps. at 7.85 volts, 1800 r.p.m.
Brush Tension—24-28 oz.
Field Test—5 amps. at 6 volts.
Regulation, third brush.

STARTER—Remy 713-G

Rotation clockwise from drive end.
Running Free—65 amps. at 5 volts, 5000 r.p.m. Approx.
Lock Torque 12 lb. ft. at 475 amps., 3.63 volts.
Brush Tension—24-28 oz.

RELAY—Remy 265-B
Relay contacts close at 575 r.p.m. of generator.

DISTRIBUTOR—Remy 636-J
Rotation clockwise viewed from top.
Advance full automatic.

Use of Better Electrical Equipment Urged

"Failure of the electrical system should not account for 53 per cent of the emergency calls," according to D. P. Cartwright of the North East Electric Co. This comment was a part of a paper prepared by Mr. Cartwright and presented May 28, 1927, at the Summer Meeting of the Society of Automotive Engineers at French Lick Springs.

The primary causes of failure of the electrical system were classified as follows:

1. Failure after a reasonable mileage operation.
2. Failure due to neglect.
3. Manufacturer's refusal to properly install equipment of sufficient stamina or capacity.
4. Failure due to faulty design, material or workmanship.
5. Failure due to climatic conditions.

It was pointed out that improper lubrication brought about much of the ignition and generator trouble. Too much oil gums up the commutator and brushes and may get on wires and rot the insulation.

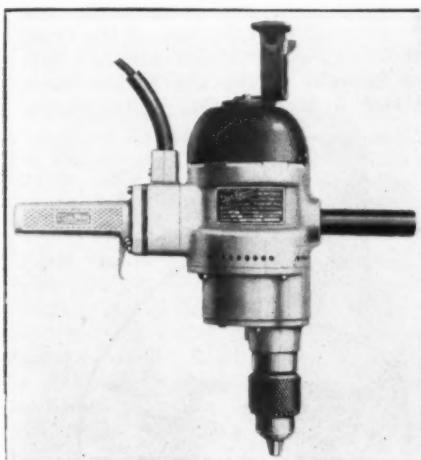
Lack of oil is sure to result in bearing failure in the distributor or generator. Battery neglect was another matter dwelt upon. The failure to add pure water at regular intervals was pointed out as a common cause of battery failure.

While it is up to the owner or the service man to see that a generator is properly set to supply the electrical requirements of the car, Mr. Cartwright pointed out that equipment of insufficient capacity was at the bottom of much of the trouble that develops. A small car requires practically as much current as a large one—frequently more. It is therefore important that the manufacturers equip their cars with generators that can supply the needed current and with batteries that can receive a high charging current without overheating.

Data secured from two automobile clubs showed that in 1926 the average percentage of emergency call put in because of electrical failures was 53, while the lowest percentage was 47 in one month and 59.5 per cent in another month.

NEW ITEMS for SERVICE SHOPS

Van Dorn Drill



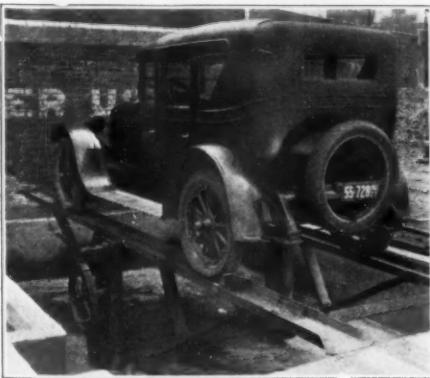
A NEW heavy duty electric drill possessing exceptional power and fine balance has just been introduced by the Van Dorn Electric Tool Co., Cleveland.

This is made in one-half inch size, operates at 315 r.p.m. when under full load, and is particularly adapted to honing or grinding. The drill is sixteen inches long over all, weighs 16 lb., and is supplied with 10 ft. of cable and automatic release safety switch. The price for the 110 volt model with Universal motor is \$60. This drill is also available with 220 or 32 volt windings at \$4 additional.

Grote Tilting Rack

BETTER results in oil draining are claimed for the tilting type of lubricating rack being produced by the Grote Manufacturing Co. of Evansville, Ind. This tilting rack is the result of two years of effort on the part of Claude W. Price of the Evansville branch of the Shaffer Oil and Refining Company. Patents have been applied for.

Cars that were supposed to have been completely drained when in a horizon-



tal position, were placed on this rack. Tilting them first forward and then

backward by means of the hand operated gearing underneath this rack, caused them to give up an additional quart of dirty oil. Examination showed that this oil was in worse condition and contained more gritty matter than that which was drained off when the car was in a horizontal position.

Manley Truck Wheel Dolly

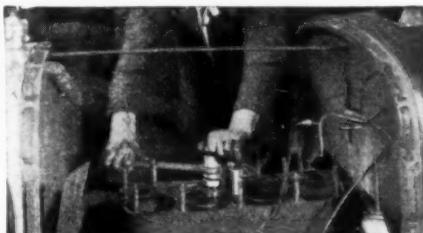
TO put speed and safety into the removal and replacing of truck wheels, the Manley Mfg. Co., of York, Pa., has brought out a special truck wheel dolly.

The Manley truck wheel dolly eliminates hoists, cranes, blocks, wedges,



etc., and makes it easy for one man to handle any size of truck wheels. The dolly is on casters and can be brought up to the truck wheel readily. A hand crank operates two forks that come up under the wheel and lift the wheel easily from the axle or bearings. The dolly weighs 210 pounds, is very substantially constructed and sells for \$100.

Valve Seat Tool



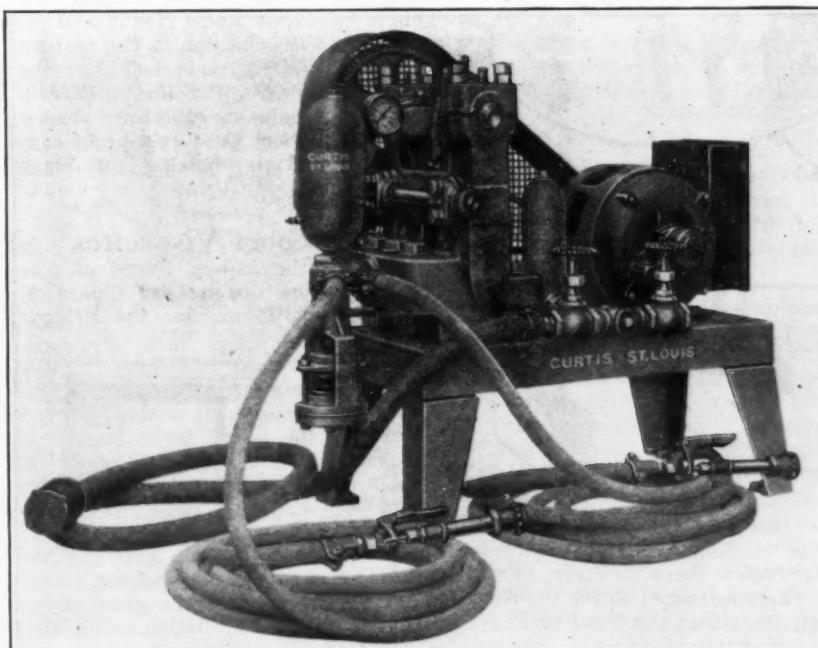
THE Stewart Devices Corp., 209 Marquette Bldg., Chicago, is producing a tool for installing new valve seats in engines. The tool with one size cutter sells for \$22.50. Seats sell at \$15 per 100 and extra cutters at \$5.

Curtis Hydraulic Washer

IN addition to the Air Mist car washer manufactured by the Curtis Pneumatic Machinery Co., of St. Louis, a hydraulic car washer is now being put on the market by that company.

This car washer is designed primarily for the small service station that does not handle washing as a regular thing, but does have occasionally.

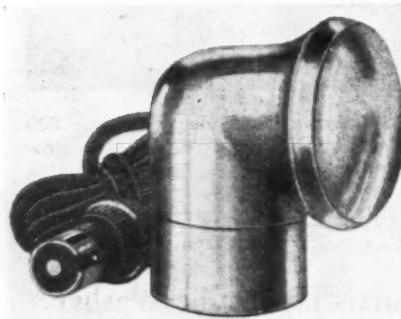
The Curtis hydraulic car washer is made in three sizes. The one nozzle, one hp.; two nozzle, two hp.; and the two nozzle oversize with three hp. motor for faster work. Each spray gun is equipped with 25 ft. of hose. Adjustment provides for a soft harmless spray for body work and a powerful stream for removing dirt from the chassis. This washer can be connected up to city supply lines or by means of an 8 ft. intake hose can be made to draw water or solution from a container.



Some of the LATEST Accessories

Magnetic Trouble Light

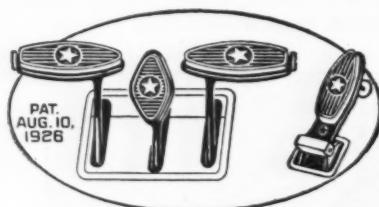
THE magnetic type of trouble light for handling service on the car at night, is being put on the market by Norwood Autocraft, Inc., 82 Beaver St., New York City.



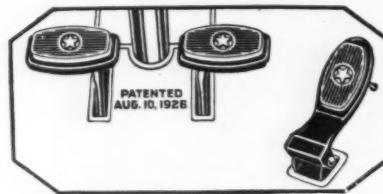
This light will cling to any steel or iron surface and naturally is a great advantage when service is necessary on the road at night. It is available in six and twelve volt models with either clip contacts or double or single plugs for connecting up. The list price is \$2.79 complete with 12 in. of cord.

Hookon Rubber Pads

A COMBINATION of rubber pedal pads and rubber covered accelerator control pedal, is being put on the market by the Metal Products Co., of Des Moines, Iowa. At the present time these items are in production for



Ford and Chevrolet cars only. In addition to increasing the comfort and safety of driving, these items make a strong appeal to the service man, due



to the fact that they are exceedingly easy to install. The pedal pads require the bending of only one lip in order to fasten them securely to the pedal. These sell at \$1.25 for the complete set, for either the Ford or Chevrolet.

Seat Cover Sales Help

FOR the purpose of assisting car dealers to sell seat covers, the Hinson Manufacturing Co., of Waterloo, Iowa, has brought out an attractive seat cover merchandiser.

This merchandiser is in the form of a book which illustrates the different kinds of covers made and shows samples of the materials used. The Hinson Co. feels that it is entirely logical for the car salesmen to sell a car with protection for its upholstering the same as he sells it equipped with bumpers for the protection of its outside parts.

Siko-Lite Bulb

A TYPE of automobile headlight which is claimed to eliminate objectionable glare, has just been announced by the Siko - Lite Corporation, Meriden, Conn. These bulbs are available for all types of automobiles. They list at 75 cents each.

The advantage of this bulb is said to be the elimination of glaring lights in the vicinity of the car, without reducing the range or penetration of the headlights.



Chevrolet Tire Lock

A CHEVROLET tire lock of exceptional strength has been introduced by the Butters Manufacturing Company, 338 Luckie Street, Atlanta, Ga. This is known as Model No. 11 and retails at \$3. In addition to the feature of great strength, this lock has the added advantage of being absolutely quiet as no chains or cables are needed with it. The lock is of rust-proof construction and is finished in black Duco.

Bridgeport Visorettes

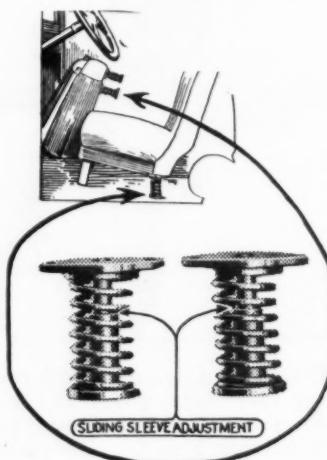
ONE of the newer items of the Bridgeport Coach Lace Company, of Bridgeport, Conn., are the Bridgeport Visor-ettes.

The Visorettes are made of heavy Du Pont Fabrikoid with a black glazed top surface and with the underside finished in green. This material is mounted on a spring metal frame that snaps into the glass channel, making the installation quick and easy.



Johnson Cushion Support

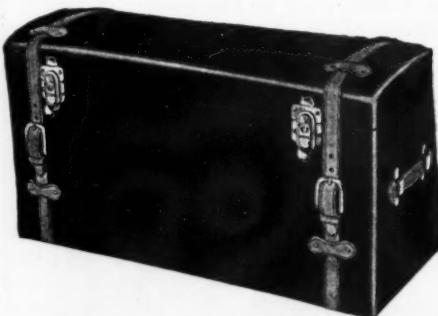
A SPRING support that takes the place of the rear legs on the front seat of any coach model car, has just been brought out by the Wilkes-Barre Welding & Machine Co., Wilkes-Barre,



Pa. As will be seen, these spring type legs are capable of absorbing many of the road jars that would otherwise reach the driver. These supports come in pairs, selling at \$1.50 per set.

Bellevue Combination

A NEAT combination of trunk, spare tire carrier and bumpers is offered by the Bellevue Mfg. Co., of Bellevue, Ohio. This equipment is sold as a complete unit and is made to fit practically any car. The regular steel trunk, bumperette, trunk carrier and spare tire carrier, is offered in seven sizes at prices ranging from \$30 to \$35.



For cars that have their gasoline tank caps so located that the trunk would be in the way, a special mounting can be provided. The same outfit as just mentioned, together with the tilting type of trunk mounting that can be raised up out of the way of the gasoline filler cap, and locked in that position, and yet securely clamped in place after the tank is filled, ranges in price between \$35 and \$55, according to the type of car on which it is installed.

READERS' CLEARING HOUSE

Questions and Answers on Dealers' Problems

Flat Rate Payments Prove Satisfactory

Will you please tell me if there is any satisfactory way of paying employees of the repair shop by piece work or any other way than by the week, regardless of the work that they do?—Harry Nissen, Nissen's Garage, 2901 Sheffield Ave., Chicago, Ill.

FROM the report of those who have put into effect the piece work plan of paying mechanics we find in general that the results are very satisfactory to all concerned. We have yet to hear of a mechanic worthy of the name, who has failed to make more money on piece work than any other way of working and as to the employer his profits are very satisfactory. We know of mechanics who average all the way from 20 to 50 per cent more money the year around on piece work and employers whose shops are now making them a good profit under this plan whereas previously they were continually running in the red.

Of course in the piece work system it is first of all absolutely essential to have a sufficient volume of business so that the men can be assured of making a good living each week. Having too many mechanics for the volume of the shop of course reduces the income of each one of them and is a situation which should not exist whether they are on piece work or a weekly salary. Where the volume of business is very irregular, modifications of the piece work plan are frequently employed. Of course the ideal situation is where all service is performed on a flat rate basis and the mechanic receives a certain percentage of the labor charge. This in many cases is 40 per cent, with the shop retaining the 60 per cent. Of course it is impossible to say exactly what the division should be as the conditions vary and the cost of doing business as well as living conditions must be considered in setting this figure. Another plan is that of hiring men by the hour and placing a time allowance on jobs and paying the men by the jobs they do instead of merely by the hours that they put in. This gives them the advantage of any saving in time which they may be able to effect by reason of their intelligence, experience and special tools. Still another method is to pay the men a reasonable hourly rate. Sell service to the customer on the flat rate plan and if the mechanic completes the work in less than the allowed time he is given one-half of the saving. In some cases the employer retains the other half and in other cases the employer prefers to reduce the customer's bill by that amount, thus building up good-will for the organiza-

tion. Greater income for the mechanic and larger profits for the shop invariably follow the installation of flat rate, both to customer and mechanic where there is a sufficient volume so that the men are kept busy.

Alloy Piston Clearance

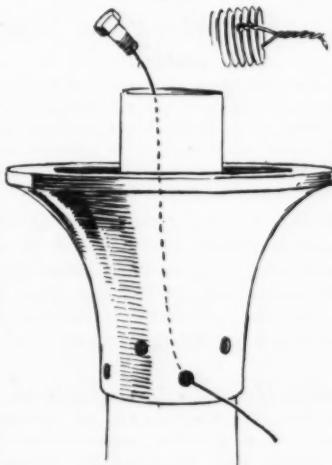
I want to install Lynite pistons and would like to know how close these can be fitted?—Akron Repairman, 1130 Lovers Lane, Akron, Ohio.

ALLOY pistons of the split skirt type should be fitted with a clearance of .001 to .0015 in. for each inch of cylinder bore. That is, on a 3 in. bore engine the minimum clearance would be .003 in.

SHOP KINKS

Ideas that have proved useful

To get a bolt into a difficult hole, take the proper size bolt and drill a 3/32 cotter pin hole in the end. Then file a slot from the cotter pin hole to the end of the bolt at each end of the hole but not so as to cut a complete slot all the way down to the hole.



Next take a piece of stove pipe wire and attach it as shown in the sketch. The slot permits a wire to hold the bolt without interfering with the nut. The bolt can now be drawn into place and the nut slipped down over the wire and onto the bolt, the nut being tightened before the wire is removed.—Goodwin Dahlen, Mabel, Minn.

Firing Order Easily Determined

Can you supply us with a list of the firing orders of all four, six, and eight-cylinder engines on the market today, or can you tell us an easy way of finding the firing order of any engine?—Fred Martels, 188 Medford Ave., Patchogue, N. Y.

WE do not have a list that is right up to date, but it is a very simple matter to find the firing order of any engine. Remove the spark plug or open the pet cock on No. 1 cylinder and crank the engine over slowly until you know that the piston is coming up on compression stroke which can be told by the air coming out of the opening. Then either remove all spark plugs or open the pet cocks and place wads of paper in each opening. Have one man crank the engine slowly while another man watches the order in which these pieces of paper are blown out. This is a sure way of finding the firing order.

How to Calculate the Engine R. P. M.

Can you supply us with a list showing the engine revolutions per minute at 30 miles an hour on all of the present makes of cars?—E. T. Bertrand, J. F. Kelley Motor Sales, 73 S. Lake St., Aurora, Ill.

SPACE hardly permits us to publish all of this. The information necessary for figuring this out, however, is contained in the mechanical specifications which are a part of each issue of *Motor Age*. Included in these specifications are the tire sizes and gear ratios for the different models. That is the information needed in order to figure out the answers to your question. Following is a table showing the number of revolutions made by wheels of different diameters in going one mile.

Tire Size	Rev. per Mile
29	.695
30	.672
31	.650
32	.632
33	.611

Knowing the tire size of the car on which you wish to figure the engine speed, refer to the *Motor Age* table and get the gear ratio, multiplying the revolutions per mile as shown in the table opposite the size of the tire that you are concerned with by the gear ratio of the car. That will give us the number of engine revolutions per mile. If the car is doing 60 m.p.h., or in other words a mile a minute, the engine revolutions per mile would be the R.P.M. As you have asked for the engine R.P.M. at 30 m.p.h., the answer to your question would be just half of the 60 mile-an-hour speed.

Taking a specific example, let us figure the engine R.P.M. for a Chrys-

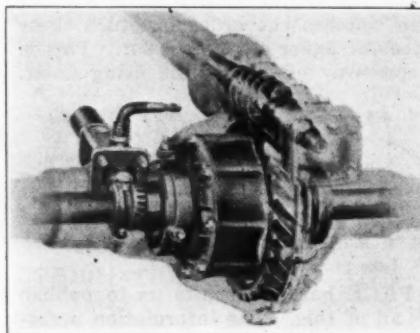
READERS' CLEARING HOUSE

ler 70 going 30 m.p.h. We have a tire size of 30 in. and a gear ratio for 4.3 to 1. The 30 in. tire, according to our chart, makes 672 revolutions in a mile. This multiplied by 4.3 gives us 2889.6 engine revolutions per mile. As we already said, that will be the engine R.P.M. when the car is going 60 m.p.h. To get the engine R.P.M. for any given car speed you can then multiply the 2889.6 by the miles per hour, in your case 30, and then divide by 60, which gives 1444.8 R.P.M.

Ruckstell Gearing on Fords

Will you please show a sectional view of the Ruckstell axle as applied to Ford trucks. Also explain its operation and show the gear ratios of a Ford with this attachment and without it.—Minnesota Reader.

IN order to show the Ruckstell addition to a Ford in a proper way, we are using two illustrations. The first is a phantom view showing the complete installation on the rear axle of a truck. The other view shows all of the internal



parts that go to make up the installation. The Ruckstell axle comprises a supplementary planetary reduction gear assembly in the rear axle housing, introducing an additional reduction between the worm gear in the truck model, and the shafts when the shifter lever is in the "low" position. When the shifter lever is in the "high" or forward position, none of the Ruckstell parts are in motion. In other words, in the high gear position the operation is just as though the Ruckstell attachment were not on the car. The following table shows the comparison of ratios with and without the Ruckstell equipment.

Passenger Car Ratios with Ruckstell Axle

	Standard Gearing	High- Speed Gearing
Ford High	3.63:1	3. :1

	Ruckstell Intermediate	Axle
High	5.59:1	4. 7:1
Ford Low	10. :1	8. 5:1
Ruckstell Emergency		
Low	15.40:1	13. :1
Ford Reverse	14.50:1	12.30:1
Ruckstell Emergency		
Reverse	22.30:1	19. :1
	With Low- Speed Worm	With High- Speed Worm
Ford High	7.25:1	5.15:1
Ruckstell Intermediate		
High	11. 6:1	8.25:1
Ford Low	19.95:1	14.20:1
Ruckstell Emergency		
Low	31.92:1	22. 7:1
Ford Reverse	29. :1	20.60:1
Ruckstell Emergency		
Reverse	46. 4:1	32. 9:1

Best Use New Rings

I am coming to you with an argument. One party says that it is better to put the old compression ring back in the first groove and the new compression ring in the second groove when only putting in one ring. What is your answer?—Glen Engelmann, 204 E. Fourth St., Spring Valley, Ill.

BY far the largest item for the job that you mentioned is that of labor. You will appreciate that when one ring is worn that the other likewise is considerably worn. For the two reasons just given we would not consider installing one ring only. However, if but one ring is to be installed, we would put it in the first groove, for you will notice that due to the high temperature and the abrasives which come in with the air, that the upper ring wears more than the others.

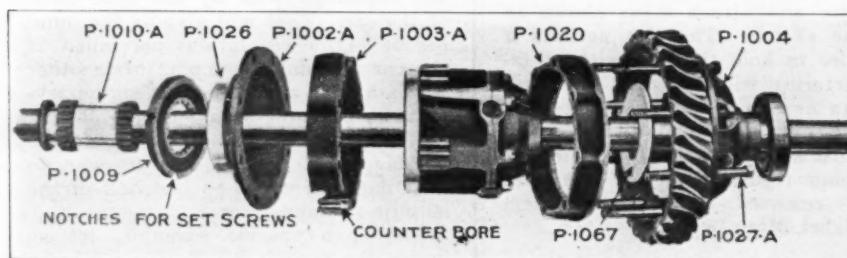
Flywheel Marks on Star Discontinued

On the 1927 Model Star car I find timing marks on the flywheel but can find no indicator with which these should be lined up. Please advise me if there is an indicator and if so where is it located?—B. H. Watkins, 318 14th Ave. W., Cedar Rapids, Iowa.

THE use of timing marks on the flywheel is being discontinued in the Star car and that is why there is no pointer assembled on the car that you have. In the present production the flywheels are not being marked.

Low Reading Sufficient

Has the 1923 Chevrolet an oil pressure regulator. If so give the proper pressure.—Roy's Garage, 1548 Thirteenth St., Milwaukee, Wis.



THREE is no pressure regulator as this pump feeds a splash system. The oil goes to the center main bearing and also to troughs into which the connecting rods dip. Any indication from $\frac{1}{2}$ lb. to 2 or 3 lb. on the gage shows that the pump is operating and that is all that is necessary.

Gasoline Gage Service On Chrysler

I would like some information in regard to the gasoline gage on the dash of the 1926 model 70 Chrysler car. What I want to know is how to repair this gage and where to look for trouble in it.—F. O'Connor & Son, Arena, Delaware County, N. Y.

DUE to the construction of this gage it is hardly advisable for anyone other than the manufacturer to attempt repairs. The operation of the fuel gage on the dash may be checked by the periodic return of the hand to "refill" every time the vacuum tank draws fuel from the main gas tank.

If the gage is not operating, tap the instrument board slightly to see if the hand is sticking. If the gage does not move then, check the vent in the fuel tank filler cap to see that it is open and then tighten all gage line connections as one of these may be loose. If this does not cause the gage to register, drain the main tank, disconnect the union at the instrument panel and blow back through the gage line toward and into the main tank between the gage line and tank gage unit. However, never blow hard against the gage nor apply air pressure to the rear tank vent to refill the vacuum tank, for example, as the pressure of the lungs is sufficient to break the gage diaphragm. All units should be assembled air tight as the slightest leak will throw the gage out. Drain the vacuum tank, fill the main tank and start the engine. If the gage is still inoperative after the engine has run long enough to cause the vacuum tank to trip and refill, the gage should be removed and sent to the factory for repairs or replacement.

Equipment Needed to Balance Flywheel

We turned about 2 in. off a Hudson Super Six flywheel and shrunk on a steel gear. The flywheel was originally drilled for balance and we find that the car vibrates very badly now when running at 35 m. p. h. Can you suggest some simple way of balancing the flywheel? We have no machinery for testing out the balance.—Marek Garage, Spillville, Iowa.

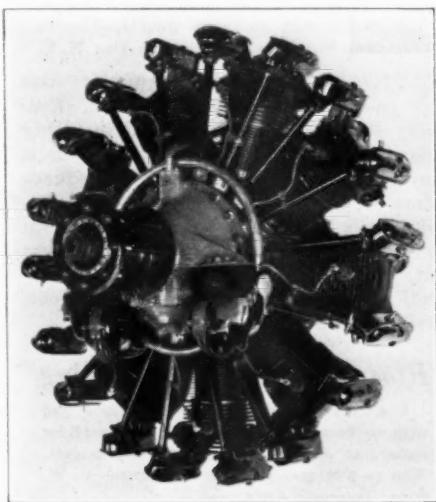
BALANCING a flywheel or crankshaft requires very special equipment. By means of a pair of straight edges it might be possible to put this in static balance, that is to balance it when it is not running, but there would be no way of knowing whether the part would be in balance when running. We suggest you send the flywheel to the Hudson factory for balancing, as they are equipped to do this work properly.

READERS' CLEARING HOUSE

Specifications of Capt. Lindbergh's Engine

Will you give me the full specifications on the engine used by Capt. Lindbergh in his flight from New York to Paris? I feel that this should be of general interest to many readers at this time.—H. & M. Service Station, 107-9 East Fifth Street, Larned, Kansas.

THE engine used was a regular Wright Whirlwind, Model J. 5 C., produced by the Wright Aeronautical Corporation at Paterson, N. J. You may see different accounts referring to Models J. 5 C. and J. 5—both having to do with the engine used by Capt. Lindbergh. The letter "C" merely means



that the engine is produced for commercial purposes. There is no mechanical difference between a J. 5 and a J. 5 C. The equipment of this engine includes a Stromberg carburetor and two Scintilla magneto. There are nine air-cool cylinders arranged radially.

This engine has a bore of 4½ inches and a stroke of 5½ inches. The piston displacement is 788 cu. in. The compression ratio is 5.4 to 1 and the power developed is from 200 hp. to 223 hp. at a speed of 1800 r.p.m. which is the normal speed at which the engine should be operated. The engine weighs 510 lbs. dry. This is 2.3 lbs. per horsepower developed. The overall length of the engine is 45 inches. Additional information which should prove of interest is as follows:

A duralumin propeller set at 16½ deg., and made by the Standard Steel Propeller Company, was used. The empty weight of the plane with all instruments was 2150 lbs. The useful load totaled 2985 lbs. and is made up approximately of 2600 lbs. of fuel, 175 lbs. of oil, 170 lbs. for the pilot and 40 lbs. miscellaneous. Thus the total load at the start of the flight was 5130 lbs. while at the finish with all fuel used, but with 10 gals. of oil left the total weight was 2415 lbs. The maximum speed of the plane fully loaded was 120 miles per hour. At its full load with carburetor set at full

rich mixture 6.95 miles per gallon were obtainable, while 13.9 m.p.g. were possible with less load and lean mixture.

Lindbergh is credited by the geological survey with having covered 3610 miles on his non-stop flight across the Atlantic. His time for the flight was 33½ hrs. and his average speed, therefore, was about 108 m.p.h.

Curing a Transmission Grease Leak

We have a 1925 Moon roadster which leaks grease at both ends of the transmission. We have installed new bearings at both ends, but have not replaced the grease retainer. When ordering the bearings we also ordered grease retainer and they sent us felts. This transmission has steel grease retainers and I would like to know where I can get a new set or if there is anything else we can do to stop this grease leak other than replace the retainers. This is a Warner transmission No. T-68-1.—Edward Anderson, 464 S. Avon Ave., Phillips, Wis.

THE name and address of the company that can supply you with the needed part will be given by separate letter. What you need is one oil slinger for the rear end, two transmission sliding shaft grease retainers and two transmission sliding shaft felts. When the transmission is torn down be sure to clean out the grooves that are in the transmission housing and which surround the grease slinger. If these grooves are plugged up with felt or if a lubricant that is too heavy for this transmission has been used the oil return hole may be plugged up with the result that the transmission lubricant cannot return to the bottom of the transmission, but works out along the shaft. If you will then install the oil slinger and see that the grease retainers and felt are in position we feel sure you will have no more difficulty provided the proper lubricant is used. Of course if a grease or excessively heavy oil is used it may not be able to flow back through the drain hole and as a consequence may work out in spite of the felt.

Shimmying, Wandering, Pitching Discussed

We are having trouble with different makes of cars wandering from side to side on the road and with some of them shimmying. Will setting the slant of the axle back a little more overcome this?—Bayer Machine & Welding Works, Shattuck, Okla.

THE problem that you are up against was very thoroughly covered in an article beginning on page 14 of the December 23, 1926, issue of MOTOR AGE. These copies are very scarce now, but we are sending you one to help you out.

Shimmying is generally caused by lack of balance of the wheels, misadjustment, excessive play or looseness of the front system. Both tires should be equally inflated and for high speed should be pumped 5 or 8 lbs. higher

than is recommended for general service. While all parts of the front system and steering gear should turn freely, there should be no appreciable lost motion except that there should be about 1 in. of free travel as measured on the steering wheel rim.

Wheels should be balanced with the tires on so that there is no inclination for them to settle. The average toe-in of a balloon tire job will be between zero and 3/16 of an inch. Where a car wanders from side to side on the road, relief can generally be obtained by using shims or wedges between the axle and spring to give the axle a little more caster. Sometimes a broken or sagged spring will tip the axle the wrong way and cause the car to wander. Looseness of the U-bolts or of the shackle bolts and bushings is also a cause of shimmying that is not always looked into.

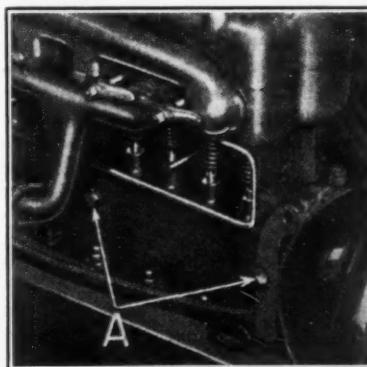
How can one overcome spring squeak and not oil springs enough to make them pitch?

Authorities are divided on the subject of spring lubrication. On one side we have men who claim that springs should be oiled as frequently as the cars are oiled. On the other side are those who say that springs should never be oiled. There is, however, a happy medium. Over-oiling will cause a car to pitch or bounce, whereas lack of lubrication may let the spring leaves rust into one solid mass, resulting in hard riding and spring breakage. The happy medium is to disassemble the springs once a year, polish them with emery cloth and apply a light coating of graphite grease. Snubbers of one type or another are in common use today to prevent a car from pitching. In connection with snubbers it is usual to keep the springs liberally lubricated thus resulting in soft riding of the car with pitching checked by the snubbers.

Replacing Ford Cam Bearing

Please tell us the correct way to replace the Ford front and center camshaft bearing when the engine is in the chassis.—Muglia Repair Shop, South Plainfield, N. J.

THE first thing to do is to remove radiator, fan and bracket, genera-



tor and bracket, and valve and timing gear covers. Then, raise each valve and

READERS' CLEARING HOUSE

Answers to Electrical Questions

Check the Alignment

We have in our shop a Buick 6, model 23-55 sport touring which has a habit of wearing out generator clutches about every 500 to 1000 miles. We have put in one and another shop has put in two. The last one we installed has been kept floating in thin grease. Can you give a remedy for this trouble?—W. H. Doyle, J-G Garage, Checotah, Okla.

ONE possibility is that the coupling alignment is not very good. One thing to check is the attachment of generator to crankcase to see that there are no chips or specks of dirt in between which would throw the machine out of alignment. Another thing to check is the pump shaft to see that it is not bent. Where the alignment seems to be good and this trouble is experienced it is possible to file out the slots in the coupling so that it is slightly loose. This gives possibility of a little noise but insures against damaging the generator clutch. The grease recommended is No. 2 cup grease.

Ground Either Terminal

I have recently had an argument with a friend about the installation of a dry cell battery on a Ford for ignition. He claims you will get better and longer service from the battery if the negative terminal is grounded. I say it does not make any difference which terminal is grounded. What do you say about it?—Carlos Farris, Tilford, Ky.

IT will make no difference in the life of the battery nor in the operation of the ignition as to which terminal is grounded.

If the storage battery is put in a Ford car with the positive terminal grounded what effect would it have on the entire electrical system and battery as compared to having the negative terminal grounded.

WHEN a battery has once been installed a certain way and the ammeter has been connected and the generator has been charging the battery we will find that the ammeter indication will reverse if the battery is reversed. This means that when you turn on the lights it will show charge instead of discharge with the battery reverse connected. However, no harm results and there is no need of changing the battery if you do not object to having the ammeter reading always the reverse of what it should. When the generator first starts up, however, after a battery has been reversed the generator tries to discharge the battery. The sudden rush of discharge current to the generator, however, usually reverses its magnetism and it then charges the battery so that again no harm results. To make sure of the generator reversing itself it is a simple matter to close the cutout points once by hand or else short circuit the cutout terminal and the generator terminal

with a pair of pliers. A still better procedure, however, is to turn on the lights and check the ammeter indication when the battery has first been installed and before the terminals have been tightened and the hold down bolts tightened. Then if it is wrong it is just as well to reverse the battery so that the ammeter will read correctly. As far as the electrical system is concerned, however, it will work just as well one way as the other.

Special Motor Needed for Test Bench

I wish to construct a test bench using an alternating current motor operating on 220 volt, 60 cycle, 3 phase current. To start with I have one of Packer's books "Electrical Trouble Shooting on the Motor Car." On page 431 is a picture of a test bench with instructions for building and I intend to copy this idea. I have the motor together with silent chain and sprocket with 2 to 1 ratio. I have a good base for the motor, and generator vise with hold down clamp. Have also a chuck that will hold from $\frac{1}{2}$ in. to 1 in. The motor and vise stand are complete but what I want to know is how to regulate the motor for different speeds. I have a resistance unit taken from an electric stove. It is marked 110 volts, 1500 watts and the switch can be turned to positions which are marked "off"—"low"—"medium" and "full."

The motor speed is 1140 r.p.m. and the big sprocket is on the motor shaft. We have only ten cars in the garage and have plenty of time to work on the bench. If I were engaged in general service work I would buy a regular driving unit. We do machine work and have in the shop a 19 in. heavy duty lathe, a 20 in. crank shaper, welding outfit, 20 in. drill press, power emery wheels, blacksmithing outfit, heavy duty press, tire changer, electric tire pump and plenty of good books, including a wiring manual. The test bench would just about round out the equipment that I feel we need.—Hugh J. Mallon, Apartado 162, Tampico, Mex.

IT looks as if you are out of luck trying to use three phase alternating current for variable speeds. These motors run at a fixed speed and there is no feasible way of slowing them down. Perhaps you can sell this motor or exchange it for a single phase motor which has a commutator. If you can do this you may be able to use the resistance unit from the electric stove. Another possibility, if you only have an occasional machine test, would be to rig up a friction drive device by which you can vary the speed or else use a couple of cone pulleys like on a lathe. In this way you might be able to get three or four different speeds and by slipping the belt might be able to check the point at which the generator cuts in and out. We would not even suggest such a scheme if you operated an electrical shop or electrical department, for the right way to build

up this bench is to get a good driving unit. Such a unit will give you any speed you wish and is the equipment you really need for electrical work.

Impurities Cause It

A friend of mine installed a new Delco lighting plant in his home about a year ago. One of the battery jars has developed a green substance inside the jar. This substance resembles a hairy growth and from the outside looks as if the jar were packed with green wool. Two of the adjoining jars are becoming affected with the same trouble.—Charles Tuckfeld, North Branch, Sullivan Co., N. Y.

EVIDENTLY some impurity has been introduced into the cell. Possibly the water which is used in filling the jars is not pure. Possibly it is pumped with a pump which introduces some oil into the water. Another possibility is that a speck of copper from one of the wires or terminals has fallen into the cell. It would probably be well to have affected jars cleaned out, and new electrolyte used.

Flat Rates on Magnetizing

I am new at the electrical business and wish to know how much money to charge for recharging each magnet in a two-bar magnet. Also each magnet in a Ford Magneto.—E. W. Syms, Ingersoll, Okla.

IF the magnets are brought in by some other repair shop and keepers are brought with them so that they can be taken back without magnetism being lost we believe that 50 cents for each magnet would be about right. If several were brought in at one time a somewhat lower charge should be made. For example, two might be charged for 90 cents, three for \$1.25 and four for \$1.50. In most cases it would be a job of first removing the magnets, then charging them, then replacing and then testing to see if some improvement had been obtained. In this case we would suggest \$1.50 as a total charge for a two bar magneto and \$2.50 for a four.

We do not recommend charging Ford magnets separately. If the engine is all apart it is much easier to run battery current through the coil assembly and hold it over the flywheel, which is lying on the floor with the magnet side up, and allow the coil assembly to be attracted by the magnets and snap onto them the way it wishes to go. This test can be made with 6 volt current. An additional 6 volt battery could then be connected in series to strengthen the magnetic effect. If other shops in your territory are not familiar with this method, you could advertise a \$2.00 price for recharging all the magnets of the Ford magneto provided they are brought in assembled on the flywheel. You could then have a magneto coil assembly to do the work.

READERS' CLEARING HOUSE

Legal Queries on Automotive Topics

Answers by Wellington Gustin

Getting Accounting From Clearing Company

On Jan. 27 I gave a clearing company a list of accounts for collection on commission. I can get no statement of what accounts they have collected, or be sure of what they have collected. I know one account was paid to them in full. Recently they won't even answer my letters.

What can I do, turn this over to the Postal Department, or can you help? The main thing I want is a statement of what accounts they have collected.—Incognito.

PRACTICALLY all collection agencies have a formal agreement written up and signed by their customer, usually the agreement amounts to an assignment of the accounts given the agency by the customer. If you signed such an agreement, you should look into it to see to what you have agreed. It might provide certain periods for rendering statements and remitting balances due you. Then, if these terms have been violated, you would have a right of action on contract for breach thereof.

Again, you can in any event go into court and ask an accounting, thus forcing the information you ask for.

This matter would not come under the postal jurisdiction, unless your account was obtained by letters inducing you to send them the accounts, or to enter into the agreement. If so, and you think fraud has been practised upon you, then you can appeal to the postal inspectors. Fear of postal interference sometimes causes firms to refrain from using the mail to answer disgruntled customers.

If you know your contract has been breached and you wish to stop collections by the agency, you can notify your debtors not to pay the agency. Wherever one has already paid, he may tell you so and offer proof. Often that works out to this disadvantage; a wily debtor will take advantage of the situation to claim he paid the account to the agency, and if your rupture with the agency causes the agency to keep all he has gotten and refuse to communicate with you, then you must bring one or both into court to find out if the account is paid.

So, if the accounts in question are valuable, and you do not wish to go to the debtors direct to find out whether the accounts have been paid, then you could put your case in the hands of an attorney in the city where the agency is located to investigate and make a

report and sue if necessary. This can best be done through a local attorney in your town who will correspond with a local attorney in the city of the agency. Any attorney who is a member of the Commercial Law League of America is equipped to do such work at a minimum cost to the client.

Chattel Mortgage and Lien for Repairs

Would like your advice as soon as possible on the following question: A customer leaves a car for repair which has a first mortgage on it about which I am not advised. He also rents garage space to leave the car in after the repair work has been done. The car has been in a separate garage for seven months. Can the man with the first mortgage take the car without paying for the repairs and rent for garage?—Wm. C. Allen, Galion, Ohio.

IN your state a valid and recorded chattel mortgage takes precedence over a subsequent lien for repairs. When considering the question of mortgages one should first ascertain whether the mortgage in question is recorded. Usually a mortgage that is unrecorded is valid only between the parties to the mortgage, but where it is recorded it gives notice to all the world. The law presumes that you have looked up the public record and have knowledge of it.

Apparently you have not preserved your lien for repairs, unless you can show you have retained possession of the car. If customer has been using the car at all since you repaired it, that would destroy your claim of lien by retaining possession.

A chattel mortgage may not be valid and it may have been made after your claim of lien. Even where the repairman has no lien for repairs or storage he may find on investigation that a purported mortgage is invalid and of no effect, because it is not recorded in the jurisdiction or locality required by the local law, or that it was not properly executed, signed and acknowledged by the proper parties, before witnesses, etc., or that the property is not described or even that the mortgage is fraudulent and void, being made without consideration or for the purpose of defeating creditors.

Difficulties Encountered in Time Sales

We have had trouble about garage keeper's and mechanic's liens

against cars which we have sold under conditional sale contracts. Please advise if there are any decisions that would apply to this question in a legal controversy.—Wabash Valley Motor Co., Robinson, Ill.

THERE are many decisions on these questions in the various states and some in Illinois.

When a car is sold under a conditional sale contract and the title remains in seller until paid, what steps would you advise when car is removed from county in which purchaser agrees to keep it? Please state what steps to take under criminal statutes when removed to another state or removed to another county.

You can proceed to reclaim the car in the manner provided in the conditional sales contract on condition broken. The state's attorney should be consulted in matters under the criminal statutes.

We have one case where a car was sold under a conditional sale contract and the purchaser removed it from the state and left it in storage in the other state, the garage keeper there believing it was only for one night storage. This car was not called for by the purchaser and after four months had elapsed, the garage keeper traced it back to us. We took possession of the car to stop the storage expense. Are there any criminal actions that can be taken against the purchaser?

Every criminal act involves an intent. Was there an intent to commit a crime here? Of course in some cases the intent is implied from the act itself. For instance, where the criminal statute forbids the removal of property from the state, the act of removal implies an intent. Under conditions of automobile traffic and uses going into various states the question arises, what is a removal of property? A car passing through a state can hardly be said to be removed to that state as a matter or in contemplation of law. Hence was there an intent to remove so as to make the customer criminally responsible?

In your opinion what is the best procedure in selling an automobile on time payment, whether to sell under conditional sale contract or take a chattel mortgage?

The law upholding the chattel mortgage is decisive and settled, which gives it an assurance and safety that may be doubted to some extent in the conditional sale.

Prices and Weights of Current Passenger Car Models

Prices and Weights of Current Passenger Car Models

SHIP WT.	PASS.	BODY STYLE	PRICE	SHIP WT.	PASS.	BODY STYLE	PRICE	SHIP WT.	PASS.	BODY STYLE	PRICE	SHIP WT.	PASS.	BODY STYLE	PRICE	
"90"																
4475	4-p	Sportif	\$5,900	3550	5-p	Sedan 2d.	\$1,425	1,425	2950	5-p	Phaeton	\$1,395	4185	4-p	Roadster	\$3,250
4370	4-p	Roadster	5,900	3650	5-p	Sedan	1,525	3025	2-4-p	Roadster	1,495	4285	4-p	Touring	3,250	
4680	4-p	Victoria Coupe	6,950	3550	4-p	Coupe	1,775	...	2-4-p	Coupe R'dster	1,565	4250	4-p	Cab-Roadster	3,450	
4842	5-p	Victoria Se'n	7,300	(127 in. W. B.)			*	3120	2-4-p	Coupe	1,565	4407	4-p	Coupe	3,350	
4615	7-p	Cabriolet	7,500	3480	7-p	Touring	\$1,490	3100	5-p	Sedan 2d.	1,395	4515	5-p	Std. Sedan	3,350	
4930	7-p	Suburban	7,500	3500	5-p	Sp. Touring	1,540	3290	5-p	Std. Sedan	1,595	4640	7-p	Sedan	3,550	
4615	7-p	Brougham	7,500	3640	4-p	Victoria	1,790	Sport Sedan	1,795	4650	5-p	Std. Sed. Lim.	3,550	
				3750	5-p	Coupe	1,990	3140	5-p	Del. Sedan	1,795	4800	7-p	Sedan Lim.	3,750	
LOCOMOBILE "48"																
5030	4-p	Sportif	\$7,460	3800	5-p	Amb. Sed.	2,090	...	5-p	Phaeton	\$1,695	...	4-p	Roadster	\$3,850	
5330	7-p	Touring	7,460	3830	7-p	Sedan	2,090	...	2-4-p	Sport R'ster	1,695	4633	4-p	Touring	3,850	
5640	7-p	Touring Lim.	9,500	OAKLAND "6"			1,695	3260	4-p	Coupe	1,725	4717	4-p	Cab. Roadster	4,250	
5600	5-p	Victoria Sed.	10,050	2500	5-p	Touring	\$1,025	...	4-p	Sedan	1,895	4882	4-p	Coupe	4,250	
5464	6-p	Brougham	10,040	2590	4-p	Sp. R'dster	1,175	3410	5-p	Sedan	1,895	4934	5-p	Sedan	4,350	
5868	7-p	Enc. Dr. Lim.	10,050	2620	5-p	Sp. Phaeton	1,095	3460	5-p	Landaulet	1,995	5027	7-p	Sedan	4,450	
5624	7-p	Cabriolet	10,300	2745	5-p	2d. Sedan	1,095	"8-69" (133½ in. W. B.)			...	7-p	Limousine	4,650		
				2705	3-p	Landaulet C.	1,125	3850	2-4-p	Roadster	\$2,995	...	5-p	Sedan Lim.	4,650	
McFARLAN "TV"																
4000	2-p	Roadster	\$5,400	2855	5-p	4d. Sedan	1,195	...	7-p	Sedan	3,095	...	4-p	Roadster	\$3,850	
4600	4-p	Sp. Touring	5,600	2885	5-p	Landaulet-S'e'n	1,295	4200	7-p	Sedan	3,595	...	4-p	Touring	3,850	
4900	4-p	Coupe	6,720	OLDSMOBILE "30E"			1,695	4275	5-p	Ber. Lim.	3,795	2880	3-p	Du. Roadster	\$1,160	
5200	4-p	Tour. Sedan	6,720	2490	5-p	Sp. Touring	\$980	3260	4-p	Coupe	1,725	3080	5-p	Cus. Tourer	1,165	
5200	7-p	Tour. Sedan	6,810	2317	4-p	DeL. Roadster	975	...	4-p	Sedan	1,895	2945	3-p	Sport Roadster	1,195	
...	6-p	Sedan	6,720	2450	2-p	Coupe	925	4050	5-p	Sedan	2,995	3105	5-p	Du. Phaeton	1,195	
...	7-p	Sedan	6,810	2570	5-p	Sedan 2d.	950	PIERCE-ARROW "80"			...	7-p	Cus. Tourer	1,245		
...	7-p	Spec. Sedan	6,810	2538	2-p	DeLuxe Coupe	990	3285	2-p	Runabout	\$2,495	2875	3-p	Country Club	1,295	
...	7-p	Enc. Sedan	7,110	2650	4-p	Sp. Coupe	1,035	3300	4-p	Phaeton	3,095	3115	5-p	Coach	1,230	
5200	7-p	Town Car	9,000	2625	5-p	De L. Sedan	1,125	3440	5-p	Brougham	2,495	3165	4-p	Custom Sedan	1,335	
				2780	5-p	Landau	1,190	3450	2-4-p	Coupe	3,100	3760	5-p	"Special Six"		
"Straight 8"																
3400	2-p	Roadster	\$2,650	2780	5-p	Touring	1,195	3525	5-p	Std. Sedan	2,895	3270	3-p	Du. Roadster	\$1,530	
3400	5-p	Touring	2,650	OVERLAND "4 Whippet"			1,695	3565	5-p	Club Sedan	3,300	3400	2-4-p	Sport Roadster	1,495	
3450	7-p	Touring	2,750	1955	5-p	Touring	\$625	3620	7-p	Std. Sedan	3,350	3700	5-p	Du. Phaeton	1,445	
3400	4-p	Roadster	3,050	2025	2-p	Roadster	695	3570	5-p	Club Sedan	3,400	3800	5-p	Club Coupe	1,480	
3650	5-p	Sedan	3,180	1930	2-4-p	Coupe	625	STUDEBAKER "Std. Six"			...	7-p	Com'der Coupe	1,545		
3650	5-p	Sub. Sedan	3,380	2025	2-p	Sedan	625	3680	7-p	Enc. Dr. Lim.	3,450	3395	2-p	Com'der Coupe	1,645	
3700	7-p	Sedan	3,280	2075	5-p	Coach	625	3420	4-p	Coupe	3,250	3465	4-p	Com. Victoria	1,575	
3700	7-p	Sub. Sedan	3,480	2185	5-p	Sedan	725	3500	5-p	Std. Sedan	3,895	3510	4-p	Com. Victoria	1,585	
3650	4-p	Coupe	3,180	2230	5-p	Landau	755	3600	7-p	Std. Sedan	3,995	3570	5-p	Com'der Sedan	1,585	
3750	5-p	Town Car	4,600	2270	5-p	Touring	\$765	3660	7-p	Enc. Dr. Lim.	4,045	(127 in. W. B.)				
				2225	2-4-p	Roadster	825	3660	7-p	"36"	3,720	7-p	Du. Phaeton	\$1,845		
MARMON "8"																
3019	2-p	Speedster	\$1,895	2305	2-p	Coupe	795	4560	2-p	Runabout	\$5,875	...	7-p	Tourer	1,845	
2977	4-p	Speedster	1,965	2405	5-p	Coach	795	4510	4-p	Touring	5,875	4050	7-p	The President	2,245	
3054	2-p	Coupe R'dster	1,995	2440	5-p	Sedan	875	4585	7-p	Touring	5,875	4080	7-p	Pres't Lim.	2,495	
3053	2-p	Coupe	1,895	2490	5-p	Landau	925	4760	3-p	Coupe	6,375	STUTZ "AA" (131 in. W. B.)				
3092	4-p	Sedan 2d.	1,795	PACKARD "6"			1,695	4815	7-p	Sedan	5,875	4058	2-4-p	Speedster	\$3,150	
3092	4-p	Sedan 4d.	1,895	3545	4-p	Roadster	\$2,350	4795	4-p	Coupe Sedan	6,375	4175	4-p	Speedster	3,160	
3092	4-p	Brougham	1,895	3590	5-p	Phaeton	2,250	4870	7-p	Enclosed Lim.	5,875	4334	5-p	Brougham	3,195	
3119	5-p	Cus. Se'n 2W	2,595	3925	5-p	Sedan	2,250	4740	7-p	French Lim.	7,500	4340	5-p	Sedan	3,195	
3172	5-p	Cus. Se'n 3W	2,595	(133 in. W. B.)			2,250	4895	7-p	Ene. Dr. Land.	6,000	4176	4-p	Vic. Coupe	3,175	
3116	4-p	Cus. Victoria	2,595	3790	7-p	Touring	\$2,785	4840	7-p	Sedan Landau	6,000	4182	2-4-p	Coupe	3,165	
3040	4-p	Cus. Cabriolet	3,125	3925	4-p	Coupe	2,685	4880	4-p	Lim. Encl.	6,375	4080	5-p	Landau Sed.	3,345	
4251	2-p	Speedster	\$3,485	4070	7-p	Sedan	2,785	4805	4-p	Sedan	6,475	(145 in. W. B.)				
4256	4-p	Speedster	3,485	4015	5-p	Club Sedan	2,725	4745	2-p	Coupe	6,600	4566	5-p	Tour. Bro'm	\$3,685	
4017	5-p	Phaeton	3,485	4130	7-p	Sedan Lim.	2,885	4800	4-p	Sedan Landau	6,600	4656	7-p	Sedan	3,685	
4480	7-p	Tour. Sp'ster	3,565	"8" (136 in. W. B.)			3,565	4865	7-p	French Land.	6,000	4731	7-p	Sedan Lim.	3,785	
4374	2-p	Coupe R'dster	3,565	4110	4-p	Runabout	\$3,850	4850	2-p	French Land.	8,000	AA De Luxe" (131 in. W. B.)				
4452	5-p	Town Coupe	3,195	4130	5-p	Phaeton	3,750	4750	2-p	Roadster	\$775	4058	2-p	Speedster	\$3,250	
4373	2-p	Coupe	3,485	4175	4-p	Coupe	4,750	2160	2-4-p	Roadster	\$1,775	4175	4-p	Speedster	3,260	
4346	4-p	Victoria	3,485	4430	5-p	Sedan	4,750	2275	2-p	Coupe	775	4182	2-p	Coupe	3,275	
4525	5-p	Brougham	3,565	(143 in. W. B.)			3,565	2375	5-p	2d. Sedan	775	4176	4-p	Vict. Coupe	3,275	
4498	5-p	Sedan	3,565	4250	7-p	Touring	\$3,950	2345	4-p	Sport Cab.	835	4334	5-p	Brougham	3,320	
4620	7-p	Sedan	3,640	4550	5-p	Club Sedan	4,890	2460	5-p	Landau Sedan	895	4340	5-p	Sedan	3,320	
4515	5-p	Custom Se'n	3,960	4660	7-p	Sedan	5,000	2510	5-p	Landau Sedan	975	4090	2-4-p	Cab. Coupe	3,470	
4678	7-p	Custom Se'n	4,075	4700	7-p	Sedan Lim.	5,100	(145 in. W. B.)			4566	5-p	Tour. Bro'm	\$3,835		
4718	7-p	Custom Lim.	4,175	PAIGE "6-45"			4,175	2960	5-p	Brougham	\$1,195	4656	7-p	Sedan	3,835	
				5-p	Touring	\$1,095	3700	5-p	Sedan	1,095	4731	7-p	Sed. Lim.	3,910		
2295	3-p	Roadster	\$995	2660	5-p	Brougham	1,095	3700	2-p	Sport Coupe	1,625	4182	2-p	Coupe	\$3,915	
2340	5-p	Phaeton	995	2615	4-p	Cab. R'dster	1,295	3700	4-p	Sedan	1,845	4176	4-p	Vict. Coupe	3,925	
2330																

Mechanical Specifications of Current Passenger Car Models

This list comprises cars distributed on a national basis

MAKE AND MODEL	WHEEL BASE (inches)	TIRE SIZE-Balloons	Number of Cyls.	Bore and Stroke	Cylinder System	ENGINE	ELECTRICAL SYSTEM		Type and Make	Gear Ratio	Rear Axle	Brakes	Type and Make	Gear Ratio	Rear Axle	Brakes	Type and Make	Gear Ratio	Rear Axle	Brakes	
							Starter Motor	Generator and Alternator													
Auburn.....6-66	120	296.5 25	Con....28L	6-27/34%	19.8	185 L Ch. C.I.	4 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.9	B.F. E-T M. Ross	S-56%	P-A. L.	4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.9	B.F. E-T M. Ross	S-56%	P-A. L.
Auburn.....8-77	125	296.5 25	Lyc. 4HM	8-27/34%	24.2	236 L Ch. C.I.	5 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Auburn.....8-88	129-146	318.6 00	Lyc. 4HM	8-34/41%	23.8	289 L Ch. C.I.	5 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Auburn.....115	125	318.6 00	Own....120 & 128	6-32/44%	23.4	207 He. C.I.	4 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Buick.....120 & 138	125	326.6 75	Own....134	8-34/57%	20.2	274 L Ch. C.I.	3 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Cadillac.....134	132-138	335.6 75	Own....Big 6	8-34/57%	21.4	314 L Ch. C.I.	4 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Chandler.....Big 6	124	335.6 00	Own....Big 6	6-32/43%	20.4	280 L Ch. C.I.	3 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Chandler.....Sidd. 6	108 1/2	305.6 00	Own....Big 6	6-34/43%	21.6	180 L Ch. C.I.	3 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Chandler.....Spec. 6	115	315.6 25	Own....Spec. 6	8-34/44%	22.4	19 L Ch. C.I.	3 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Chandler.....Royal St. 8	124	326.6 00	Own....Spec. 6	8-34/44%	23.8	314 L Ch. C.I.	3 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Chevrolet.....AA	103	293.4 40	Own....Cap. 4-3/44	21.8	171 I He. C.I.	3 N PS Y Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.			
Chrysler.....'60	108-191 1/2	303.6 75	Own....	6-31/265	29.4	288 L Ch. Al.	7 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Chrysler.....'50	153 1/2	293.4 75	Own....	4-35/541/8	21.0	170 L Ch. Al.	3 N PC N Th.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Chrysler.....'60	156 1/2	283.6 25	Own....	6-34/45%	21.6	180 L Ch. Al.	3 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Chrysler.....'70	162 2/4	303.6 00	Own....	6-34/45%	21.8	180 L Ch. Al.	3 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Cunningham.....V-7	132-142	336.6 75	Own....	78-34/45%	45.0	442 L Ch. C.I.	4 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Dagmar.....6-60	120	326.6 00	Own....	48-34/45%	25.3	224 L Ch. C.I.	4 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Dodge.....92-27	115	326.6 00	Con....	11U-6-34/45%	25.3	230 L Ch. C.I.	7 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Davis.....94-27	110	293.4 93	Con....	28L-6-34/45%	19.8	185 L Ch. C.I.	4 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Davis.....95-27	119 1/2	323.6 00	Con....	28L-6-34/45%	20.4	247 L Ch. C.I.	5 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Davis.....St. 8	116	315.6 25	Own....	4-3/44%	24.0	212 L Ch. C.I.	5 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Dodge Brothers.....Senior 6	116	326.6 00	Con....	6-21/24/3	20.8	224 L Ch. C.I.	7 N PK Y Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Dodge Brothers.....Senior E	125	326.6 25	Wis. 70	6-31/65	27.3	288 L Ch. C.I.	3 N PC N Th.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Eclair.....8-82	117	285.6 25	Wis. 70	6-21/44%	19.8	185 L Ch. C.I.	4 N PC N Th.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Eclair.....8-90	123	306.6 00	Lyc. 4HM	8-21/44%	24.2	226 L Ch. C.I.	5 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Eskimo.....6	107	283.4 90	Con....	8F-6-34/41%	16.5	145 L Ch. C.I.	4 N PK Y Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Eskimo.....Super Six	110 1/2	305.6 00	Wilson.....10 1/2	6-21/35/3	20.8	17 X Ch. C.I.	7 N PK Y Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Falcon-Knight.....Z-18	110	305.6 25	Con....	6-21/44%	18.8	169 L Ch. C.I.	4 N PK Y Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Fiat.....116	115	305.6 77	Con....	14U-6-34/45%	25.3	230 L Ch. C.I.	7 N PK Y Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Fiat.....80	120-130	326.6 20	Con....	6-31/65	27.3	268 L Ch. C.I.	7 Y PK N Th.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Ford.....T	100	293.4 20	Own....	4-3/44	22.5	177 L He. C.I.	7 N Sp. C. N A.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Ford.....11-B	119	326.6 00	Own....	6-3/44	22.5	199 L He. C.I.	7 N Sp. C. N A.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Gardner.....90	130	326.6 00	Lyc. 4HM	8-21/44%	24.2	226 L Ch. C.I.	5 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Hudson.....Super 6	114	305.6 25	Own....	A-1	24.6	288 F Ch. C.I.	4 N P. G. P. C.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Hupmobile.....A-1	114	326.6 00	Own....	A-1	24.6	288 F Ch. C.I.	4 N P. G. P. C.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.		
Hupmobile.....E-3	125	326.6 00	Own....	12E	288 F Ch. C.I.	5 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.			
Jordan.....AA	107	283.4 25	Con....	9K	288 F Ch. C.I.	5 Y PK N Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.			
Jordan.....AA	116	326.6 00	Con....	8-21/44%	26.4	247 L Ch. C.I.	6 N PK Y Pu.	N D.R. D.R. P. Long	War.. m-U.P.	1/2 Col... 4.7	B.F. E-T M. Ross	S-56%	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P-A. L.	4.45 B.F. E-T M. Ross	1/2 Col... 4.45 B.F. E-T M. Ross	P		



Chevrolet has changed every idea of how fine a car can be bought for *little money*

People everywhere are realizing that Chevrolet offers a host of costly car features and refinements and a type of performance previously undreamed-of in a low-priced automobile—that the Most Beautiful Chevrolet has changed every idea of how fine a car can be bought for little money.

As a result of this unapproached value, Chevrolet sales in every section of the country are reaching new and spectacular heights—with Chevrolet dealers everywhere enjoying a constantly increasing volume of sound profitable business.

CHEVROLET MOTOR CO., DETROIT.
Division of General Motors Corporation

The COACH
\$595

<i>The Touring or Roadster</i>	\$525
<i>The Coupe</i>	\$625
<i>The 4-Door Sedan</i>	\$695
<i>The Sport Cabriolet</i>	\$715
<i>The Landau</i>	\$745
<i>The Imperial Landau</i>	\$780
<i>½ Ton Truck Chassis Only</i>	\$395
<i>1 Ton Truck Chassis Only</i>	\$495

All Prices F.o.b Flint Michigan

**Check Chevrolet
Delivered Prices**

They include the lowest
handling and financing
charges available.

QUALITY AT LOW COST

Mechanical Specifications of Current Passenger Car Models—Continued

ELCAR



*Nothing less than
amazing success
could win such a letter!*

No car that is only mildly successful can inspire letters like that reproduced here. And no ELCAR dealer would term the success of the 1927 ELCAR with the *Shock-less Chassis* merely mild.

The continuously phenomenal success of the *Shock-less Chassis* has added immensely to the value of a franchise that has never been unprofitable. Let us send you details of that franchise at once.

S. J. Clegg, President G. E. McEntee, Vice-President J. A. Hutchinson, Secretary-Treasurer

Elcar Buffalo Corporation
NEW YORK, NEW YORK, REPRESENTATION FOR THE
REST OF THE U.S.A.



100 Main Street, BUFFALO, N.Y.

April 22, 1927

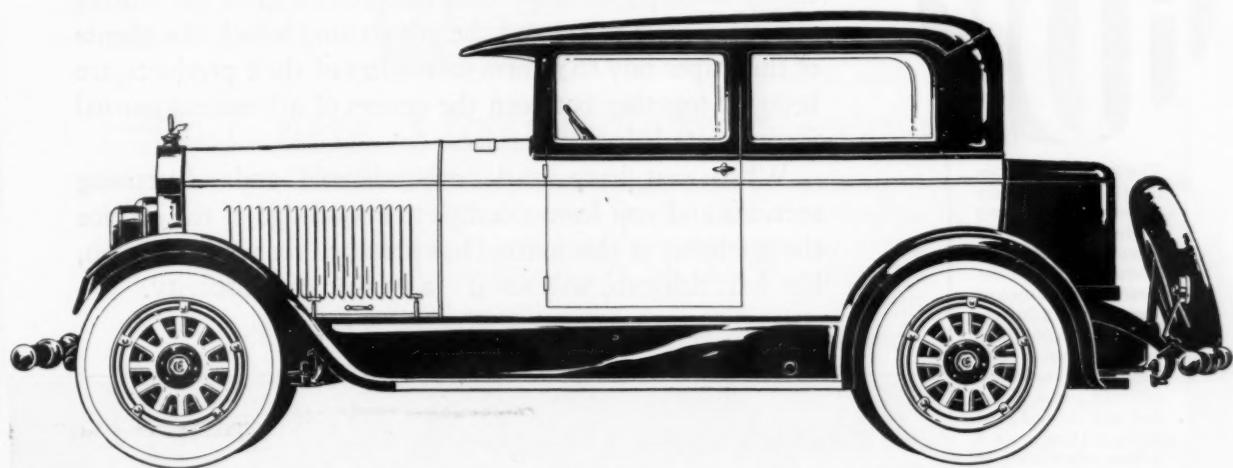
Elcar Motor Company,
Elkhart, Indiana.

Gentlemen:

After many years in the automobile field, we feel qualified to match prophecies with anyone. And we prophesy without hesitation, because our sales this year justify it, that 1927 will be the most prosperous Elcar dealers have ever known, and that they will make more money than many other dealers, regardless of either the name or the advertising back of the car they handle.

Very truly yours,
ELCAR BUFFALO CORPORATION

By 
President



ELCAR MOTOR COMPANY · ELKHART, INDIANA



CHARLES M. SCHWAB

"Makers of Business Prosperity"

BUSINESS journalism has established a great clearing house of information," says Mr. Schwab, probably as widely recognized for his human understanding of selling as for his capacity as a great manufacturer.

"You cannot have prosperity," says Mr. Schwab, "without confidence, and you cannot have confidence without a free and honest exchange of information."

* * * * *

That is the platform this publication stands on. Business publications which succeed are more than a collection of editorial and advertising pages.

* * * * *

Every publication has its specialized field of service and plays its part intimately in the interchange of information and opinion, which is the basis of prosperity to which the captain of steel refers.

* * * * *

Both editorial and advertising pages are made to fulfill this great responsibility. The men and methods the editors select for their pages and the advertising which the clients of this paper buy to inform its readers of their products, are brought together between the covers of a business journal for intimate help and service.

When you have read both editorial and advertising sections and you have a complete knowledge of the service the publisher of this journal has prepared for you; then you, like Mr. Schwab, will see it—a Maker of Prosperity.



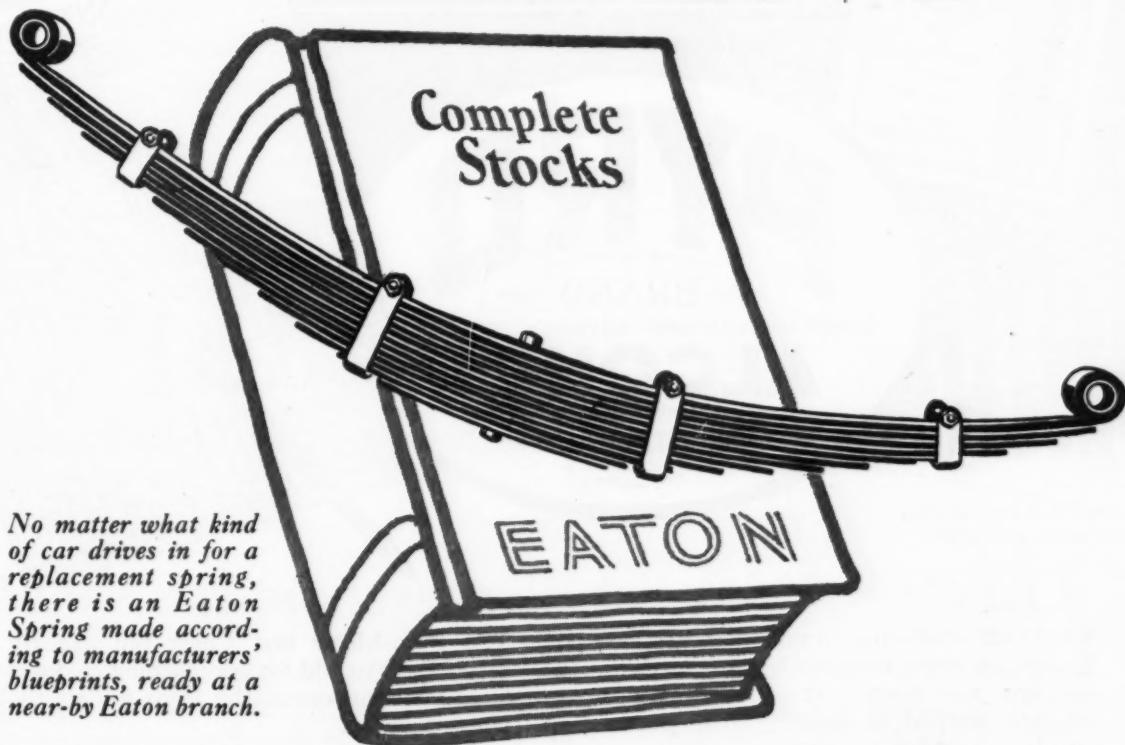
The A. B. P. is a non-profit organization whose members have pledged themselves to a working code of practice in which the interests of the men of American industry, trade and professions are placed first—a code demanding unbiased editorial pages, classified and verified paid subscribers, and honest advertising of dependable products.

This publication is a member of

THE ASSOCIATED BUSINESS PAPERS, INC.



We could write a book on Eaton springs



No matter what kind of car drives in for a replacement spring, there is an Eaton Spring made according to manufacturers' blueprints, ready at a near-by Eaton branch.

—but, here is the whole story in a nutshell

Eaton Factory Branches in the principal distributing centers—each with a complete warehouse stock, giving overnight express delivery to any part of the country—keep your inventories at rock-bottom and give undelayed service to your customers.

THE EATON BUMPER & SPRING SERVICE CO. • Cleveland, Ohio
Factory Branches with complete warehouse stocks at—Boston, Philadelphia, Cleveland, Chicago, Kansas City, Denver, Dallas, Atlanta

EATON SPRINGS

Made by the Makers of Eaton Axles and Eaton Bumpers

You can increase your with this

Your jobber will get you this helpful sales material!

INSTEAD of offering an unnamed product, you can get more business by selling Pyro, the standard anti-freeze. It carries with it an accurate method of insuring *full protection* even in the coldest weather.

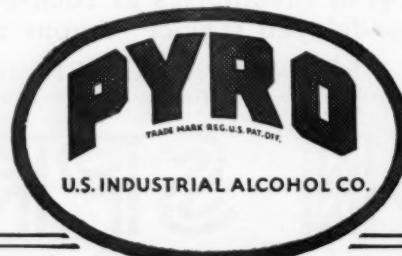
Car-owners recognize Pyro as the standard anti-freeze. They will stop to buy this nationally advertised radiator protection *from you* if you display the brilliant new Pyro streamer or the Pyro window sticker.

More than an alcohol—Pyro means Service!

The Pyro-Meter and Chart tell exactly how much Pyro to add for approaching cold weather. Give your customers the Pyro folders that explain in detail.

They will buy Pyro from you because it is part of the service. *Pyro Meters and Pyro Anti-freeze Charts are made for use with Pyro solutions only.*

Your jobber can tell you all about Pyro, the Pyro-Meter and this year's sales-helps.



winter business standard anti-freeze

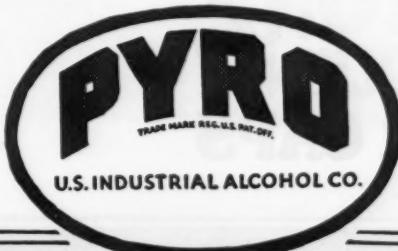


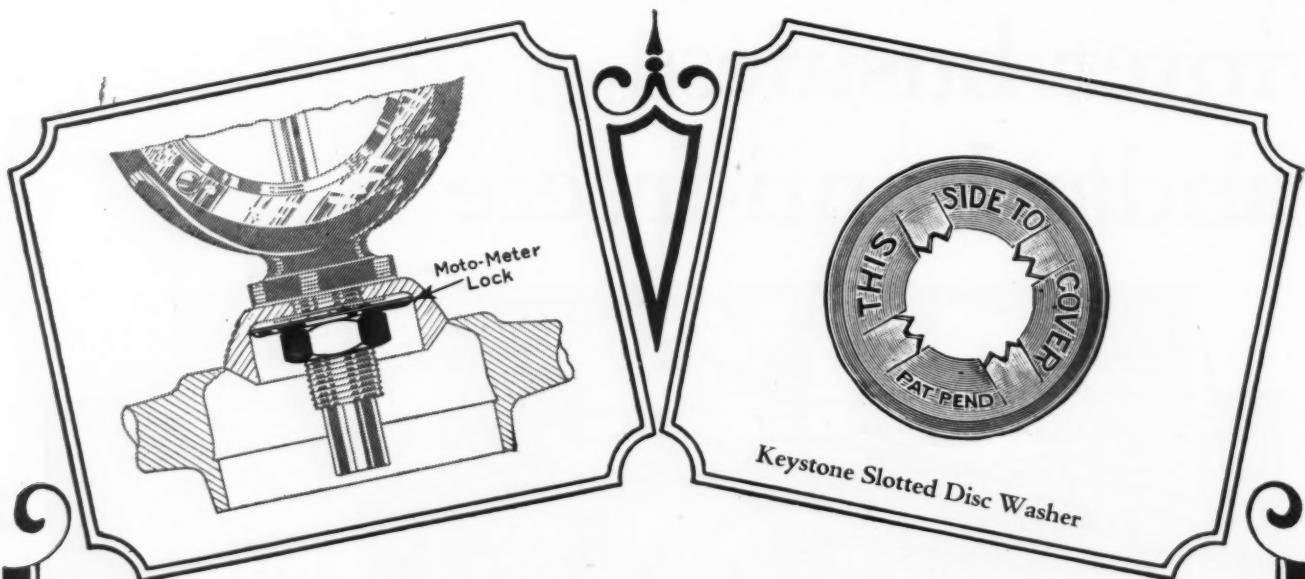
More car-owners will ask you for PYRO

ALREADY the biggest selling anti-freeze on the market, Pyro will have even greater demand next winter.

Two strong advertising campaigns will tell car-owners in every community the advantages of Pyro—the standard anti-freeze.

Rough sketches of some of these forceful sales messages are shown above. One set of advertisements will appear at regular intervals in 140 newspapers all over the country. In addition, special advertisements will run whenever the Weather Bureau announces "colder weather coming."





Permanent Protection to Meter or Ornament

The self-locking slotted disc washer (as illustrated) is a well-known and efficient Keystone feature. The meter or ornament is securely locked to hinged cover of cap because the teeth of washer engage between threads and expand into the stem when firmly tightened.

A Keystone Cap locks automatically to radiator neck and cannot be removed without shop tools. (No keys, balls, pins or set screws are employed.) Brass, machine-set inserts eliminate corrosion, sticking and "freezing"—therefore, because they are rustproof, permanent protection is provided for the complete unit.

These time proven mechanical features in Keystone Caps are recognized for their superiority by jobbers, dealers and car owners throughout the entire country.

The combination of distinctive beauty in design and the utmost in utility and protection has made the Keystone Line the outstanding success it is today.

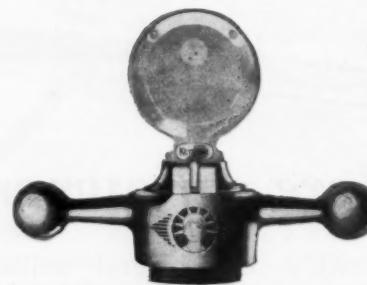
Ask your jobber or write us

THE NORLIPP COMPANY
568 W. Congress St. Chicago

KEYSTONE SELF-LOCKING RADIATOR CAPS



De Luxe Senior \$8.50
De Luxe Junior 7.50
With Genuine Onyx Balls



Senior (all nickel) \$4.50
Junior (all nickel) 3.50



Eagle . . . \$6.00
Eaglet . . . \$4.00
Includes Initial or Emblem Plate

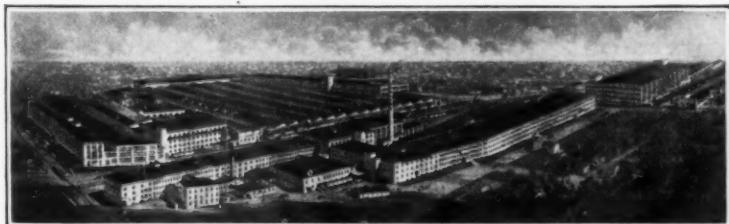
It's Easy to Sell Cars in June, but— You Can't Make Profits Until You Make Deliveries

How much money have you lost because you were unable to deliver all the cars you could sell in June and other big buying months?

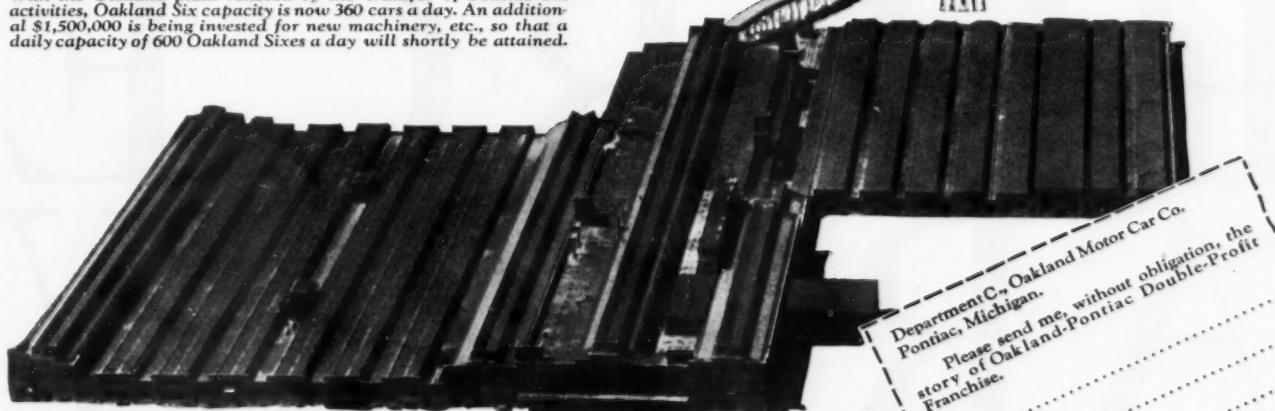
The more you have lost, the more you will appreciate the full value of the protection offered the man who holds the Oakland-Pontiac Double-Profit Franchise. For Oakland recently spent \$15,000,000 in factory expansions, including a brand new plant for Pontiac Sixes and important additions to the Oakland Six plant.

Not content with giving its dealers two lines of sixes that the public wants and will buy—not satisfied with helping its dealers sell these cars in record-breaking volume—never resting until the final step enabling dealers to make big profits has been taken—

Oakland has expanded its facilities and increased its equipment so extensively that even in the biggest buying seasons prompt deliveries are assured.



With the Oakland plant relieved by the transfer of Pontiac Six activities, Oakland Six capacity is now 360 cars a day. An additional \$1,500,000 is being invested for new machinery, etc., so that a daily capacity of 600 Oakland Sixes a day will shortly be attained.



Airplane view of the new Pontiac Six factory. Fisher Body plant in rear, connected by an aerial conveyor 1240 feet long

You know the immense popularity of the New and Finer Pontiac Six. And you know that the Greater Oakland Six is gaining prestige every day. Now, knowing that Oakland can deliver cars at times when you need them most, you should look with even greater interest on the Double-Profit Franchise.

If you want to know all its advantages, mail the coupon below.

*Oakland Six, \$1025 to \$1295. Pontiac Six, \$775 to \$975.
Pontiac Six, Commercial Cars, \$585 to \$770. All prices at
Factory. Delivered prices include minimum handling charges.
Easy to pay on the General Motors Time Payment Plan.*

OAKLAND MOTOR CAR CO., PONTIAC, MICH.

OAKLAND-PONTIAC *Double-Profit Franchise*

MAIL THE COUPON

Department C., Oakland Motor Car Co.,
Pontiac, Michigan.
Please send me, without obligation, the
story of Oakland-Pontiac Double-Profit
Franchise.

(Name).....

(Street and No.).....

(City and State).....

PIERCE-ARROW

market *doubled* by recent price reductions

THERE are now at least twice as many people in your territory who can afford to buy a Pierce-Arrow as there were before the recent price reductions—up to \$500—on several popular *Series 80* models. Your customers can now buy a beautiful five-passenger, enclosed Pierce-Arrow for as low as \$2495 (at factory, plus tax).

This greatly widened market makes the Pierce-Arrow franchise—always desirable and profitable—more valuable than ever before. The new prices, the lowest in Pierce-Arrow history, make these cars available at but little above the cost

of the average popular-priced car.

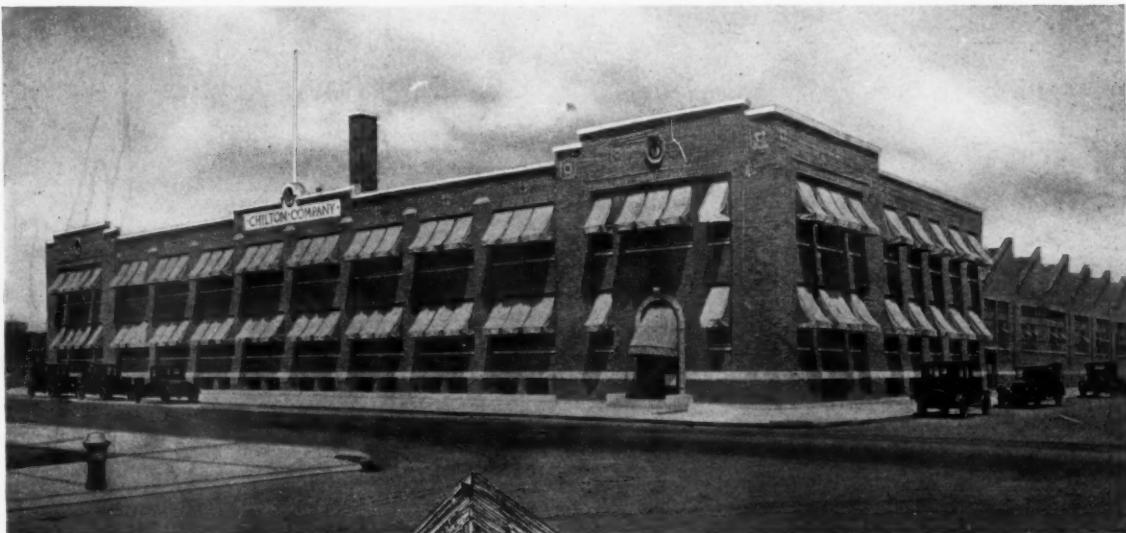
And the result is felt, not only in record-breaking sales of *Series 80* cars, but the magnificent *Series 36* at \$5875 (plus tax and transportation) for the Enclosed Drive Limousine, is sharing in this strong demand.

In cities, large or small, where Pierce-Arrow is not adequately represented, dealers and other substantial business men are invited to investigate the new franchise. With Pierce-Arrow selling as never before, this franchise is, without doubt, the most profitable in the entire field. Write or wire.

THE PIERCE-ARROW MOTOR CAR COMPANY, Buffalo, N. Y.

PIERCE ARROW

Series 36 and Series 80



*Chilton Building, Philadelphia Publication
Offices of Chilton Class Journal Company.*



*United Publishers Corporation Building,
New York Publication Offices
of Chilton Class Journal Company.*



*The Chilton Class Journal Company is the
Automotive Division of the United Publishers
Corporation.*

Retail Automotive Distribution

SUCCESSFUL SELLING is the goal toward which the major effort of the automotive industry has been directed for over a quarter of a century!

Fifteen years ago the problem was to sell the automotive idea to a somewhat skeptical public.

Ten years ago the foundations of modern automotive selling were being laid, but in the absence of a permanent, closely knit sales organization manufacturers still found it necessary to deal, or attempt to deal, directly with the buying public.

Today the sales machinery of the nation's greatest industry is solidly established. It is coordinated, synchronized to modern buying habits, and extends from the greatest city to the most remote hamlet. No sales organization in all industrial history has penetrated so deeply into the buying consciousness of the public.

These facts are recognized by the makers of automotive products. They no longer need to be told that the dealer is the keystone in the sales arch. The need for establishing effective trade contact is not subject to question.

Today's sales problem has to do with the best method for establishing a sound and profitable contact with the dealer organization.

Some manufacturers are still in doubt as to the most effective means for impressing sales messages on the minds of the worthwhile elements in trade circles. It is generally realized that the concern with well established trade connections has its sales battle won in advance.

No manufacturer would knowingly buy inferior materials at high prices for use in his factory. This matter of relative values is just as applicable to expenditures for promoting sales.

To assist manufacturers in arriving at a fair basis of comparison between various publicity media, this booklet*, summarizing the results of several nation-wide investigations by outstanding manufacturers, has been prepared, and is offered, not as opinion, but as evidence.

Chilton Class Journal Company

*NOTE—This 16-page insert is a part of a 60-page booklet on the important subject of "Retail Automotive Distribution," just published by the Chilton Class Journal Co. for advertising agencies and automotive manufacturers.

Four Nation-Wide Surveys of the Field Covered by Trade Publications

Purpose

These investigations were designed to indicate the extent to which various automotive trade publications reach the retail trade, and to reflect the opinion of the trade at large on the business value of each publication.

By Whom Conducted

Four outstanding manufacturers in four different fields co-operated in conducting the inquiry, so that results might be compared and conclusions reached. These four concerns were:

John Warren Watson Company
Chrysler Sales Corporation
Johns-Manville, Incorporated
Celoron Company
(Div. Diamond State Fibre Co.)

In view of the national standing of these companies, and their diversity of business interests, the value of the investigation and its accuracy are much greater than would be the case if only one organization had participated.

Field Covered by Inquiry

In order to confine the inquiry to a study of the value of various trade papers to the retail trade, only the following questions were asked:

What is your *principal* line of business?

- Car Dealer
- Service Station
- Supply Store

Which of the following publications do you now receive regularly?

- * Publication No. 1
- * Publication No. 2

*NOTE—On the original questionnaire, seven of the more important trade publications were named in their alphabetical order. The list included Automobile Trade Journal and Motor Age.

- Automobile Trade Journal
- * Publication No. 4
- * Publication No. 5
- Motor Age
- * Publication No. 7

Which trade papers do you find most helpful in your business? (Please do not check more than *two*.)

- * Publication No. 1 *
- * Publication No. 2
- Automobile Trade Journal
- * Publication No. 4
- * Publication No. 5
- Motor Age
- * Publication No. 7

Do you find the advertising pages in trade journals helpful?

Yes No

For automotive manufacturers and advertising agencies who want the complete story—names of all publications, etc.—a report has been compiled and will be furnished upon request to the Chilton Class Journal Co., Philadelphia.

Method of Conducting Survey

The entire investigation was carried on by mail. A total of 11,500 questionnaires, embodying the above questions, were sent out by the four manufacturers, as follows:

John Warren Watson Co..	3,000	
Chrysler Sales Corporation	3,000	
Celoron Company.....	2,500	
Johns-Manville, Inc.....	<u>3,000</u>	
Total.....		11,500

In every instance the investigating company selected names of trade units to receive its respective questionnaires from the total Retail Trade List, which embraces 101,450 names—each page averaging 53 names.

Company No. 1 sent its questionnaire to the first three names at the head of each page. Company No. 2 to the next three, and so on to the fourth company which used the fourth set of three names on each page.

Hence there was no duplication. Every state in the union was included. The result was a complete four-way survey of a complete cross section of the retail automotive trade in the entire United States.

To insure against partiality, publications were listed alphabetically, and subscription lists in all cases were disregarded.

*NOTE—On the original questionnaire, seven of the more important trade publications were named in their alphabetical order. The list included Automobile Trade Journal and Motor Age.

SUMMARY

Combined Results of Surveys by

John Warren Watson Company Johns-Manville, Incorporated
Chrysler Sales Corporation Celoron Company (Div. Diamond State Fibre Co.)

11,500 Inquiries Sent Out 2,667 Total Returns Analysed

What is your *principal* line of business? 2,546 Replied.

	(Percent of 2,546)
Car Dealer	1,533 60.2
Service Station	748 29.4
Supply Store	265 10.4

Which of the following do you receive regularly? 2,458 Replied.

	(Percent of 2,458)
Automobile Trade Journal ...	1,431 58.2
Motor Age	1,102 44.8
*Third publication	766 31.2
*Fourth publication	711 28.9
*Fifth publication	436 17.7
*Sixth publication	286 11.6
*Seventh publication	223 9.1

Which trade papers do you find most helpful? 2,311 Replied.

	(Percent of 2,311)	
Automobile Trade Journal .	47.0 %	1,087
Motor Age.....	37.7 %	871
*Third publication	23.7 %	548
*Fourth publication	20.6 %	475
*Fifth publication	9.7 %	225
*Sixth publication	8.7 %	200
*Seventh publication	5.1%	118

The relative standing of these papers on all four questionnaires was identical

Do you find the advertising in trade journals helpful? 2,415 Replied.

	(Percent of 2,415)
Yes	2,248 93.1
No	167 6.9

Conclusions

The position of *Automobile Trade Journal* and *Motor Age* is clearly defined by these surveys.

The fact that in four independent investigations these two publications received over 25 percent more than all others combined, suggests how effectively they are meeting the business paper needs of the automotive dealer.

*NOTE—On the original questionnaire, seven of the more important trade publications were named in their alphabetical order. The list included *Automobile Trade Journal* and *Motor Age*.

That *Automobile Trade Journal* and *Motor Age* are justified in high claims to reader interest is proved by reproduced letters—from association executives, manufacturers, distributors and dealers—which appear upon this and succeeding pages.

"One field of advertising which is too often neglected is that of the trade papers. Show me an industry which has successful business publications, and I can tell you without any other evidence that that industry is a successful one. I know of no business which has a better line of trade papers than the automobile industry. They are well edited, well printed, well merchandised, and they have a high standard of ethics."

Alfred Reeves
General Manager
National Automobile Chamber of Commerce

"Your several publications, issued to the different departments of the automotive industry, cover their respective fields with thoroughness and with information and material of paramount value to their readers.

"They have served this industry from its inception and I speak with the authority of one who was an advertiser in the original Chilton publications as far back as 1896, and has been a faithful reader of your columns ever since."

E. P. Chalfant
Executive Vice President
National Standard Parts Association

Advertising in Chilton Class Journal publications reaches more and costs less.



61 E. 35th St.,
Chicago, Ill.

February 23, 1927.

Mr. C. A. Musselman,
Chilton Class Journal Co.,
N.W. Cor. Chestnut & 56th Sts.,
Philadelphia, Pa.

My dear Mr. Musselman:

I think that the condition and the progress of any industry can be judged more quickly by the character of the trade papers in that business or industry than by any other source. And by this same rule of criticism I think that the publications in the automobile industry are not only fully within keeping with the size and the development of the business, but are themselves far superior to the average run of trade publications to be found in any other business. I do not believe there is any industry in America so well served with publications as the automobile business, and needless to say the automobile industry acknowledges a tremendous debt to the Chilton Class Journal Company of which you are the head. Your vision of your publication has kept the pace with the best thought of the leaders in the industry you serve.

Very truly yours,
NATIONAL AUTOMOBILE DEALERS ASSOCIATION

CAV*UL

General Manager.

Advertising in Chilton Class Journal publications reaches more and costs less.



DIRECTORS
EUGENE V. R. THAYER
CHARLES M. SCHWAB
HORACE A. WEATHERBEE
WILLARD A. MITCHELL
WALTER C. JANNEY
FREDRICK E. MOSKOVICS
EDGAR S. CORRELL

STUTZ MOTOR CAR COMPANY
OF AMERICA, INC.
INDIANAPOLIS, IND., U.S.A.
CABLE ADDRESS "STUTZ"

Wednesday
March
Ninth,
1927

Chilton Class Journal Company,
56th and Chestnut Street,
Philadelphia, Pa.

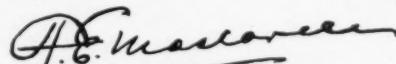
Gentlemen:

You asked me what my opinion is of the relation of MOTOR AGE and AUTOMOBILE TRADE JOURNAL to dealers of this country. You might as well have asked me what the bible means to the minister of the gospel, or history to a nation.

I do not know of two more constructive forces than these publications. They have lead the dealer fight of the Industry since there has been one. I know for a definite fact that they have the sincere respect of the mass of dealers.

The editorial policies have never lowered their standards and I, for one, am convinced that the two publications deserve the support of everyone sincerely desirous of furthering the interests of the dealer and the Industry.

Very truly yours,



A. E. Moskovics
President

F. Moskovics AKG

The NEW SAFETY STUTZ

Advertising in Chilton Class Journal publications reaches more and costs less.

WALTER P. CHRYSLER
CHAIRMAN OF THE BOARD

CHRYSLER CORPORATION
347 MADISON AVENUE
New York, N.Y.

February 28, 1927.

Mr. J. S. Hildreth,
Vice President and Sales Director,
Chilton Class Journal Company
56th and Chestnut Streets,
Philadelphia, Pa.

Dear Mr. Hildreth:

Motor Age and Automobile Trade Journal are excellent publications, long established, ably edited and sound editorially. Their influence in the automotive industry has been a genuinely constructive one. Both publications are deserving of ever increasing support.

Sincerely yours,

W. P. Chrysler
Chairman of the Board

Advertising in Chilton Class Journal publications reaches more and costs less.

PEERLESS MOTOR CAR CORPORATION
93RD STREET SE AND QUINCY AVENUE
CLEVELAND, OHIO



February 22, 1927.

J. S. Hildreth, Vice Pres.,
Chilton Class Journal Co.,
56th & Chestnut Streets,
Philadelphia, Pa.

My dear Mr. Hildreth:-

As the years pass by and the automobile industry becomes more and more firmly established on sound and conservative business lines, I am impressed by the part which the industry's excellent trade papers have had in its development. From the early days the automotive papers have kept abreast of each development and have rendered great assistance. This is particularly true of Motor Age, which was one of the first of automobile publications as I remember it, and your company is to be congratulated on owning such an excellent paper.

Yours very truly,

PEERLESS MOTOR CAR CORPORATION.

Edward Ver Linden

Edward Ver Linden,
President & Gen'l. Mgr.

EV:PK

"Peerless Has Always Been a Good Car"

Advertising in Chilton Class Journal publications reaches more and costs less.

GEORGE H. TOWNSEND
PRESIDENT

MANUFACTURERS OF
THE BOYCE MOTO-METER
FACTORIES
CANADA
FRANCE
ENGLAND
GERMANY
AUSTRALIA

EARL V. HENNECKE
VICE PRESIDENT AND GENERAL MANAGER

LOUIS C. KUNZ
SECRETARY AND TREASURER

CABLE ADDRESS
"MOTOMETER NEW YORK"
CODES USED:
BENTLEY'S
AND A.B.C. 5TH EDITION

THE Moto M
CREATED
LONG
EXCLUSIVE
CITY
PATENTS

ALL PRICES SUBJECT TO IMMEDIATE ACCEPTANCE AND CHANGE WITHOUT NOTICE
ALL ORDERS SUBJECT TO FINAL ACCEPTANCE AND APPROVAL OF OUR HOME OFFICE
NOT LIABLE FOR NON DELIVERY DUE TO STRIKES OR ANY CAUSES BEYOND OUR CONTROL



February
21st
1927.

Mr. J. S. Hildreth, Vice Pres. & Sales Director,
Chilton Class Journal Company,
Philadelphia, Pa.

Dear Mr. Hildreth:-

No such organization as has taken place in the automotive industry can be accomplished without the complete coordination of many different branches of effort, and some times it seems to me that those of us engaged in some particular branch, grow unappreciative of the successful accomplishments of those who may be following a little different line of endeavor; however one which is closely related and directed towards the same ultimate goal.

Personally, I have always had a very high regard for those business papers dedicated to automotive advancement. However, it has only been recently that I fully realized just what a splendid and far reaching influence the trade press had exerted towards the development of our industry.

I want to take this particular occasion then to congratulate the Chilton Class Journal Company, and all of those splendid papers produced by this organization on the good work you have accomplished, and I wish you every success in the continuance of your present constructive programs.

Cordially yours,

Earl V. Hennecke
Vice President.

EVH:PR

Advertising in Chilton Class Journal publications reaches more and costs less.

HARTER B HULL
PRESIDENT

THE HARTER B HULL CO
DODGE BROTHERS CARS
GRAHAM BROTHERS TRUCKS
OFFICES - 301 WEST 28th ST

BALTIMORE

March 26th, 1927.

Mr. Julian Chase
Directing Editor,
Chilton Class Journal Co.
56th & Chestnut Streets,
Philadelphia, Pa.

Dear Mr. Chase:-

In my opinion, Motor Age and the
Automobile Trade Journal have been important
factors in the development of what is unquestionably
a far saner and more scientific method
of dealer operations in all its branches in
this industry.

The effect on Department Managers
and other employees of the constructive articles
which constantly appear, is unquestioned and
clinches the recommendations along the same lines
which the general management is constantly striving for.

Your Flat Rate work has helped the
industry and has been particularly valuable to
those dealers who pioneered in this field as it
has, through its wide-spread use at this time,
now definitely sold the public on the value of
this type of service.

Your staff is "competent".

Very truly,
Harter B. Hull
Harter B. Hull

Hull
H

Advertising in Chilton Class Journal publications reaches more and costs less.

MARTIN-NASH MOTOR CO.

GEORGIA
ALABAMA
FLORIDA
R H MARTIN PRESIDENT

DISTRIBUTORS OF NASH MOTOR COMPANY'S PRODUCTS
ATLANTA-JACKSONVILLE-BIRMINGHAM

PLEASE ADDRESS
REPLY TO ATLANTA

PART OF
S. CAROLINA
TENNESSEE
VIRGINIA

March 21st, 1927

Mr. Julian Chase, Directing Editor,
Chilton Class Journal, Company,
56th and Chestnut Sts.,
Philadelphia, Pa.

Dear Sir:

Since subscribing to Motor Age and the Automobile Trade Journal, we have always found them a source of interesting and helpful information.

Both of these publications are read by many members of our organization, and there are instances where the information gleaned from your publications has been used to the mutual advantage of our dealer customers and this Company.

Your campaign for the adoption of the flat rate system has been of interest, and we are certain that we have a more comprehensive knowledge of the automobile industry and its many factors by a careful reading of these publications.

Assuring you that it is a pleasure to write you in this manner, we remain

Very truly yours,
MARTIN NASH MOTOR COMPANY


R. H. Martin
Mgr. Sales Promotion Dept.

RCH:KJ

NASH LEADS THE WORLD IN MOTOR CAR VALUE!

Advertising in Chilton Class Journal publications reaches more and costs less.

JAMES LEVY, PRESIDENT
CHAS. E. GREGORY, GENERAL MANAGER
JAMES LEVY MOTORS COMPANY
MICHIGAN BOULEVARD
AT 23RD STREET
TELEPHONE CALUMET 4626
CHICAGO

Mar. 16, 1927.

Mr. Julian Chase,
c/o Chilton Class Journal Co.,
Fifty-Sixth & Chestnut Sts.,
Philadelphia, Pa.

Dear Mr. Chase:

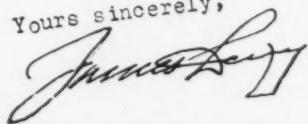
As a constant reader of the Motor Age and the Automobile Trades Journal published by your Company, I wish to make a statement of the benefits I have derived from same. A number of them were from only suggestions, others have been of experiences of other dealers; I have been also kept posted on new models, prices, etc.

I think the Auto Industry was wonderfully helped by the promotion of the flat rate system and the modern service methods which you advocated.

We must admit, during the past twenty years, that the writer has been actively interested in our industry, that there have been changes upon changes constantly taking place not only locally, but nationally to which we dealers of the industry had to adapt ourselves, and I found no better medium of advise than your wonderful publication.

I am candid in saying that I have profited much by my consistent reading of your opinions, suggestions, etc.

Yours sincerely,



JL-DT

Advertising in Chilton Class Journal publications reaches more and costs less.

SALES-RANDOLPH 6030



SERVICE-RANDOLPH 6030

THE R.J. SCHMUNK CO.

DISTRIBUTORS
HIGH GRADE MOTOR CARS
3746 PROSPECT AVENUE

CLEVELAND

March 30 1927



Mr. Julian Chase, Directing Editor
Chilton Class Journal Co.,
Philadelphia, Pa.

My dear Mr. Chase:-

We regard Motor Age and Automobile Trade Journal as the encyclopedia of the Automobile Industry; both mediums have a decidedly helpful, instructive value to automobile merchants, indeed to everyone engaged in a line of business that has contact with the automobile industry.

The news matter, editorials, helpful and instructive description of business methods etc etc I think are read with a great deal of interest, from which a better understanding is obtained of our problems and therefore makes us better merchants.

This applies not only to those having to do with the actual sale of new cars but all along the line, including service men, used car men etc.

Your campaign for the flat rate system has unquestionably operated advantageously, in that with those of us who were eager to institute this plan of service, it helped to mould a receptive opinion and better understanding of the plan in the minds of our dealers and their shop men.

Your illustrations and description of new cars and accessories, the news of the industry featuring better service methods, your helpfulness in architectural co-operation for new dealer establishments all contribute immensely toward making these mediums so valuable.

In a "nut shell" Motor Age and Automobile Trade Journal should constitute a part of the General Reference Library of every automobile merchant.

With every wish for your continued success, I am,

Very truly yours,

President

Advertising in Chilton Class Journal publications reaches more and costs less.

Comparative Value

Motor Age

(WEEKLY)

**\$5.80 per page
per thousand circulation**

*25,847 A.B.C. circulation (12-31-1926 report).

Subscription renewal: 57.81%.

Cost per page, 52-time basis, \$150.

Circulation analysis by occupation:

Trade	88.33%
Salesmen and mechanics.....	6.71%
Automotive manufacturers	1.96%
Misc. and unclassified	3.00%

Automobile Trade Journal

(MONTHLY)

**\$5.86 per page
per thousand circulation**

43,469 A.B.C. circulation (12-31-1926 report).

Subscription renewal: 54.34%.

Cost per page, 12-time basis, \$255.

Circulation analysis by occupation:

Trade	91.45%
Salesmen and mechanics	2.27%
Automotive manufacturers78%
Misc. and unclassified	5.50%

Competitive Monthly

**\$7.90 per page
per thousand circulation**

†45,554 verified circulation.

Subscription renewal: 31.68%.

Cost per page, 12-time basis, \$360.

Circulation analysis by occupation:

Trade	73.42%
Salesmen and mechanics	17.05%
Automotive manufacturers	1.57%
Misc. and unclassified	7.96%

Competitive Weekly

**\$11.01 per page
per thousand circulation**

11,347 unverified circulation.

Subscription renewal: no record.

Cost per page, 52-time basis, \$125.

Account of non-membership in the Audit Bureau of Circulations there is no record of circulation analysis.

*No premiums.

†19,860 secured through premiums.

During 1926 there were 961 automotive manufacturers who restricted their trade paper advertising to Chilton Class Journal Publications. They used them for results—and got results.

What Are You Doing to Move Goods From the Shelves?

YOU are a merchant with merchandise to sell. If wisely bought it is well known, well advertised and has an assured market—but that is only the first step.

The rest depends upon whether you are going to wait for the customer to come in and ask for the goods or whether you are going to give your entire organization full information and instructions, thus enabling them to take advantage of the sales opportunities brought

about by new or improved products.

To insure getting this business—to maintain and increase sales—the merchant will find it beneficial to bring his organization together at least once a week and outline plans for using the sales thoughts contained in the advertising, sales helps, etc., provided by the manufacturers. Show the salesmen how to present the improved merchandise to prospective customers.

Why You Can Do a Big Business on AC Products

Over 12,000 cars a day are leaving the factories equipped with AC Spark Plugs, among them being *Buick, Cadillac, Chrysler, Chevrolet, Essex, Hudson, LaSalle, Nash, Oakland, Oldsmobile, Pontiac, Star*, and many others.

This tremendous equipment business means positive and ever-increasing sales for the dealers.

There are now over 7500 cars and trucks a day leaving the factories equipped with AC Oil Filters, among them being *Buick, Cadillac, Chandler, Chevrolet, Nash, Oakland, Oldsmobile, Paige and Peerless*.

Every owner of one of these cars is a ready customer for one or more AC Oil Filter Cartridges a year. This fact alone means big sales possibilities for the dealer.

There is also a good business to be had on the complete AC Oil Filter installation now available for over 30 makes of cars not oil filter equipped.

Because Ford cars are not speedometer-equipped and every Ford owner needs and wants a speedometer, there is a big business for the dealers on the AC Speedometer for Ford if they go after it.

How You Can Move More AC Products

AC SPARK PLUGS

Sell in sets. A new set can be sold to every owner after his plugs have run a certain mileage—approximately ten thousand. To do this, the dealer should ask owners how long they have used their spark plugs and sell them a new set to improve motor performance. Have a good display of AC Spark Plugs in windows as well as on counters and shelves.

AC OIL FILTERS

The AC Oil Filter, after a certain mileage, will become filled with the dirt it has taken from the oil, and only by installing a new Cartridge can the owner be assured of continued efficient lubrication of his engine.

You can get this Cartridge business by checking

the filter on every AC Oil Filter-equipped car that comes into your place, recommending a new Cartridge when needed.

By telling the owner of its advantages and economy, you can also do a good volume of business on the complete AC Oil Filter for cars not already equipped with this device.

AC SPEEDOMETERS

Point out to Ford owners that the AC Speedometer tells them how fast they are going and how far they have gone and enables them to check their oil, gas and tire mileage; also that the AC Speedometer is a full-size speedometer, registering speed, total and trip mileage—the same as used on AC Speedometer-equipped cars.

AC Spark Plug Company, FLINT, Michigan

AC-SPHINX
Birmingham
ENGLAND

Makers of AC Spark Plugs—AC Speedometers—AC Air Cleaners—AC Oil Filters—AC Gasoline Strainers

AC-TITAN
Levallois-Perret
FRANCE

Mohawk settles the question of

LAST year, with the best one-dial set in the world, with cabinets and consoles of splendid design, and with prices that established unbeatable values, Mohawk amazed the radio world, wiped out traditions, and began a spectacular march to the front rank of the industry. This year, with a set that has 24 major refinements over last year's great set, with cabinets and consoles that completely eclipse the beauty of last year's models, and with prices that definitely stop competition, Mohawk settles the question of radio leadership in 1927-28.



IROQUOIS CONSOLE—Rich walnut, hand-rubbed, piano-finish, duo-tone, with apron maple spindle-carved, four turned legs, battery compartment with front removable panel, with built-in patented pyramid loudspeaker with tastily designed Burgundy red silk-backed grill, with set compartment accommodating Mohawk interchangeable battery or electric Drawer Unit. Dimensions: $47\frac{3}{4} \times 23\frac{1}{2} \times 15\frac{1}{2}$ inches. List \$120

Building Them Better
Pricing Them Lower
Selling Them Faster

Mohawk



SEMINOLE SPANISH VAR-GEUNO CONSOLE—A superbly unusual Mohawk Creation. Complete in every detail of design, originality and construction. Dimensions: $45\frac{3}{4} \times 36 \times 20$ inches. List . . . \$245



HIAWATHA CONSOLE—Pier creation. Rich walnut, hand-rubbed piano-finish, duo-tone, hand-carved Chippendale legs, trimmed in curly maple, battery compartment with front-removable panel, with built-in patented pyramid loudspeaker, with tastily designed Burgundy red silk-backed grill, with set compartment accommodating Mohawk interchangeable battery or electric Drawer Unit. Dimensions: $60 \times 19\frac{3}{4} \times 14$ inches. List \$150

One Dial

June 9, 1927

MOTOR AGE

83

Radio Leadership in 1927-28



PAWNEE CONSOLETTE — Rich walnut, hand-rubbed, piano-finish, duo-tone, with apron maple, spindle-carved, four turned legs, battery compartment with front removable panel but without speaker compartment or speaker, with set compartment accommodating Mohawk interchangeable battery or electric Drawer Unit. Dimensions: $38\frac{1}{8} \times 19\frac{1}{2} \times 13\frac{1}{4}$ inches. List \$85



CORTES CONSOLE — Castilian strut-legged creation. Rich walnut, hand-rubbed, piano-finish, duo-tone, four turned strut legs, with hand-wrought iron polychrome-finished center stretcher, battery compartment with front-removable panel, with built-in patented pyramid Loud-speaker, sliding, disappearing type arm rest, receding. Castilian-designed, Burgundy red silk-backed grill, Console trimmed with curly maple, with invisible type hinges, with set compartment accommodating Mohawk interchangeable battery or electric Drawer Unit. Dimensions: $48\frac{1}{8} \times 24 \times 15\frac{1}{8}$ inches. List \$185



CHEROKEE TABLE CABINET — Rich walnut, hand-rubbed, piano-finish, duo-tone with maple overlay on end pilasters. Full piano-hinged. Dimensions: $17\frac{1}{4} \times 12 \times 10\frac{1}{2}$ inches. List \$65



CHIPPEWA — The famous radio-history making Chippewa. The standard One-Dial Radio Console. The favorite, fast-moving seller of the wide-awake, progressive radio dealer. List \$110

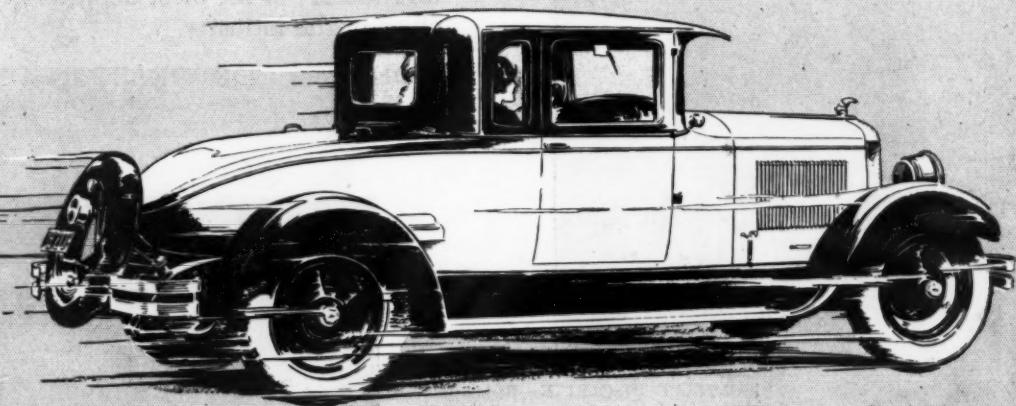
Prices slightly higher west of the Rockies and in Canada

Radio

MOHAWK
CORPORATION
OF ILLINOIS
Established 1920
Independently Organized
in 1924
CHICAGO



New Territory



*The new Six-60
Roadster-Coupe
\$1345*

The New PEERLESS

THE new Six-60—\$1295 to \$1345—broadens Peerless sales opportunities three to one. It has opened up a market that's entirely new.

Now the Peerless franchise is a substantial profit maker in innumerable smaller towns where before, a higher price range meant sales almost too limited to be worthwhile.

Hundreds of small town dealers have seen the added possibilities in Peerless since this new car was announced. A name honored everywhere—a complete line of strictly quality cars—and *now* an all-inclusive price range.

PEERLESS HAS ALWAYS BEEN A GOOD CAR



now Available



*The new Six-60 Sedan
\$1345*

Six-60 opens up new sales possibilities

Big city automobile merchants also have welcomed this new Peerless with open arms. They, too, realize it means increased sales and increased profits! No company offers a price range that's broader, or a car that's more favorably known than Peerless.

If you are not entirely familiar with what Peerless is doing—if you don't know the tremendous strides Peerless is making—write, wire or phone for details of the Peerless proposition. You'll find it intensely interesting.

PEERLESS MOTOR CAR CORPORATION • Cleveland, Ohio

*Manufacturers of the famous 90° V-type Eight-69, the Six-72,
the Six-80, the Six-90 and the Six-60*

(All prices f. o. b. factory)

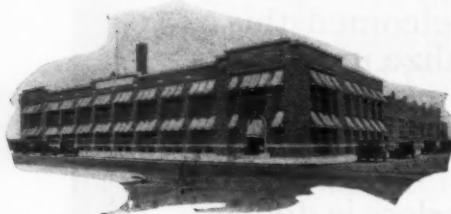
PEERLESS HAS ALWAYS BEEN A GOOD CAR

COMP

Automotive
Merchandis

Proof!

Four leading manufacturers—car, brake lining, accessory and equipment—recently completed nation-wide investigations among automotive dealers to determine where the advertising dollar could be placed for greatest investment returns. The results should be in the hands of every manufacturer and advertising agency. In book form. A wonderful story. Will be sent on request to Chilton Class Journal Co., Philadelphia.



Philadelphia office and production headquarters

Market Surveys and Analyses Trade Investigations Merchandising Plans

A completely rounded out service for advertising agencies and manufacturers who want direct, effective and economical merchandising contact with the automotive industry and trade.

Trained executives who have made a lifetime study of automotive markets, and success methods in the merchandising of automotive products, are at your service.

Our publications do not attempt to "blanket" the industry and trade. Each one has its definite field—industrial, wholesale, retail. Each publication is designed and edited for a specific audience. Hence manufacturers receive the greatest possible return for every advertising dollar invested. No lost motion. No extravagance.

DIRECT MAIL—we maintain a highly efficient list and addressing service—industrial, wholesale, retail—for manufacturers who wish to link direct by mail advertising with their publication efforts.

CHILTON CLASS JOURNAL COMPANY

**AUTOMOTIVE
INDUSTRIES**

**AUTOMOTIVE
Industrial
RED BOOK**

**MotorWorld
Wholesale**

**AUTOMOBILE
TRADE JOURNAL**

Chilton Class Journal Publications

Ente

ing Facilities

Advertising Agencies—

Where problems arise which have to do with automotive markets we will welcome the opportunity of placing our entire facilities at your disposal.

Automotive Manufacturers—

Makers of cars, trucks, parts, accessories, equipment, machine tools, etc., are invited to take advantage of a gold mine of marketing data which we have available for their use. Requests sent via your advertising agents, or direct to our Philadelphia headquarters, or to any of our branch offices in New York, Chicago, Cleveland, Detroit or Indianapolis, will be given prompt attention. *Our entire facilities are at your service.*

A corner in the list department where authoritative industrial, wholesale and retail automotive lists are developed and maintained.



Looking into the collating and mailing department where facilities exist for the rapid dispatch of volume production.



Trained copy writers who are automotive specialists.



A staff of skilled artists for the benefit of advertising clients.

CHESTNUT AND 56TH STS., PHILADELPHIA

MOTOR AGE

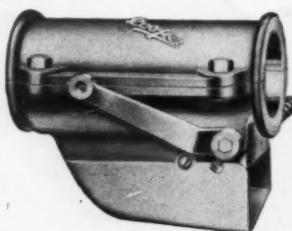
CHILTON
CATALOG
DIRECTORY

THE
COMMERCIAL
CAR JOURNAL

Operation &
Maintenance

CHILTON TRACTOR &
EQUIPMENT
JOURNAL

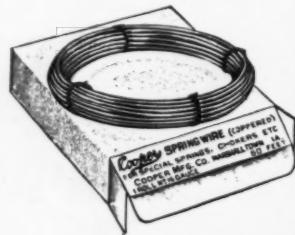
Chilton Class Journal Publications



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The Famous Cooper Dash Control

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7. Saves gasoline.
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10. A combination engine tester and carbon outlet valve.

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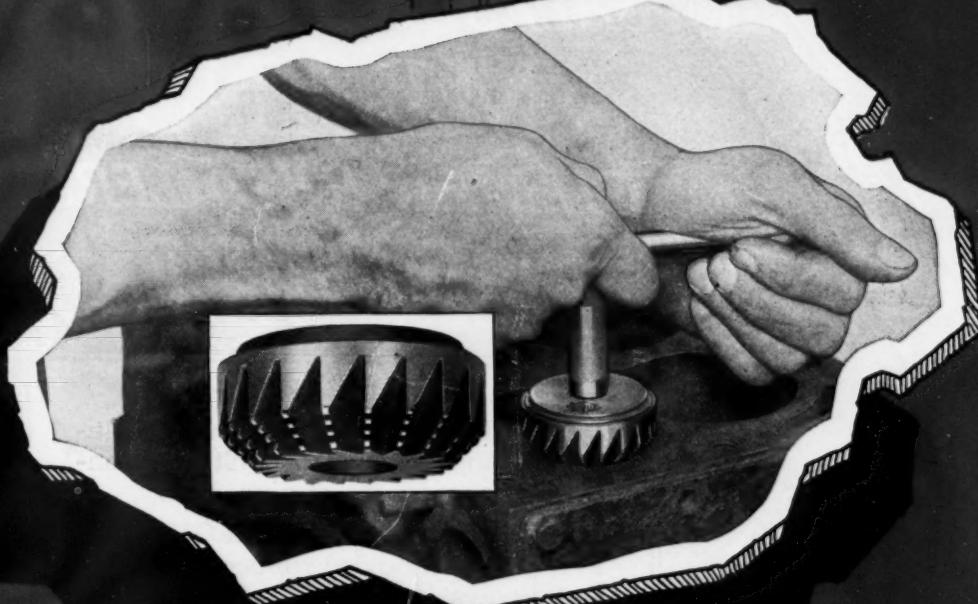
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MOTOR AGE
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Philadelphia, Pa.

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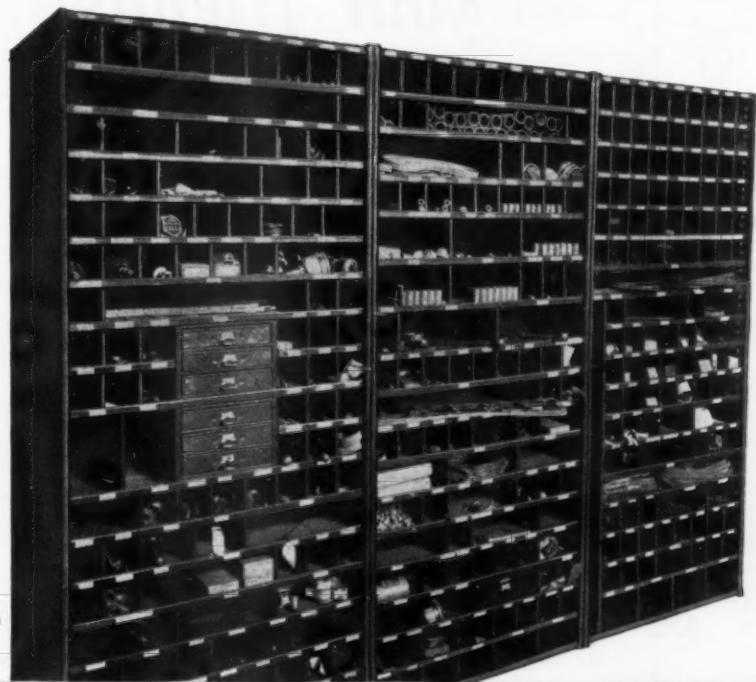
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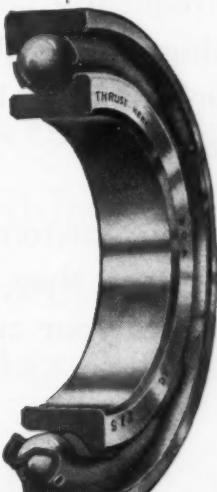
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to make a living.

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That is your best fortification against competition. It is often better than price. It is frequently better than anything except quality, or a more sincere brand of courtesy.

Make your customers your
friends—and they will keep
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MOTOR AGE

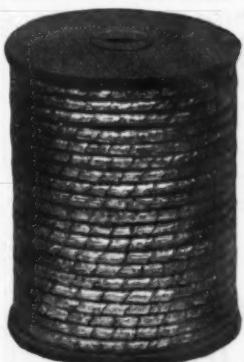
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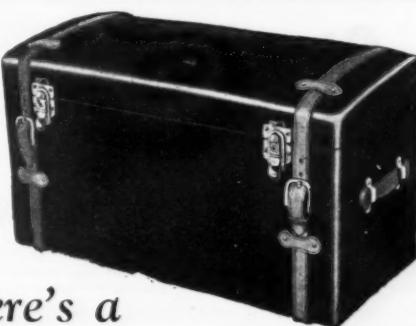
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something new just
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The MoToTRUNK line includes all necessary fittings. Write for information.

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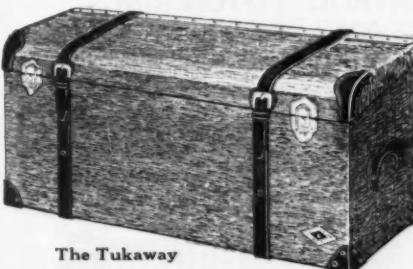
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There is no substitute for Lorenz Quality.

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Backed by Seven Years' Satisfactory Service
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are saying . . .

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Hamburg, Penna.

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Write for Catalog and Prices

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Now--5 Different Oversizes
to every standard size and type of
Piston Pin—in stock, waiting for
your telegraphic order.

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PISTON PINS
Defiance Ohio

It's a Permanent Repair!

Have a can of CONNEAUT PLASTIC METALLIC PACKING in your garage and be ready for the fellow who says he can't keep his water-pump from leaking. All sizes in one can. Stocked with your Jobber.

1 lb. can	\$1.75 per lb.
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Manufactured by THE CONNEAUT PACKING COMPANY Ohio

HALL HONE \$35.
at your
Jobber's

Spring and Solid Pressure in one Hone

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Summer vacation-land is calling to the traveling motorist. Soon the boulevards of Chicago and the streets of New York will see many out-of-town visitors. Around the mountain lakes and seashore resorts, both East and West, clusters of cars will congregate with license plates representative of many states.

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In short, sell your customers a set of Tuthill Titanics.

Tuthill Titanic Springs for high quality and satisfaction.

Tuthill Equipment Springs for good quality at a low price.

TUTHILL SPRING CO.
760 Polk St., Dept. 679, Chicago, Ill.

Quality Spring Makers for Nearly Half a Century

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BUILT FOR THOSE
 WHO WANT THE BEST

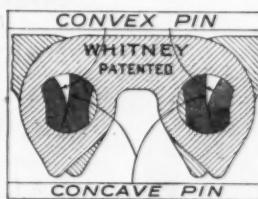
"WHITNEY" SILENT HIGH MILEAGE CHAINS

Advancing with the art of the motor designer toward ever greater durability and quieter operation, the "WHITNEY" line now offers TWO wonderful silent chains for the replacement parts trade.

No chain ever produced has shown the rugged endurance of the original "WHITNEY" DOUBLE BEARING PIN AND BUSHING TYPE. The bearing *within* and *without* the bushing is practically double the joint bearing area in other chains.



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*Ask our distributor in any
 city, or mail coupon for spe-
 cification list*

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 Hartford, Conn.**

I want that book on chain specifications

Name

Address

Service Station Fleet Owner Parts Jobber

This popular demand for Knight-engined cars

The rapidly spreading popularity of Knight-engined cars is a natural trend toward better motor performance, longer life, freedom from carbon annoyance and mechanical trouble. Throughout the next five years, demand for cars powered by this type of engine, will continue to grow at a rapid rate.

The greatest profits in the automobile business come to dealers, who, having the foresight to visualize the trend of industry, act on their judgment at the opportune time.

The Falcon-Knight is the only six-cylinder Knight-engined car in the \$1,000 price group.

Falcon-Knight dealers are now enjoying a profitable business which will continue to grow each year.

FALCON MOTORS CORPORATION, DETROIT

Falcon-Knight



A PRESS THAT WILL TAKE CARE OF ALL YOUR REQUIREMENTS

Long or short pieces for straight pressing or straightening up to 30 tons.

Combined with a sensitive arbor press for lighter work up to 3 tons.

The Manley 30-Ton Hydraulic Press will meet practically every press requirement (up to 30 tons) in the automotive service station.

Pressure Gauge
Shows actual tonnage being exerted

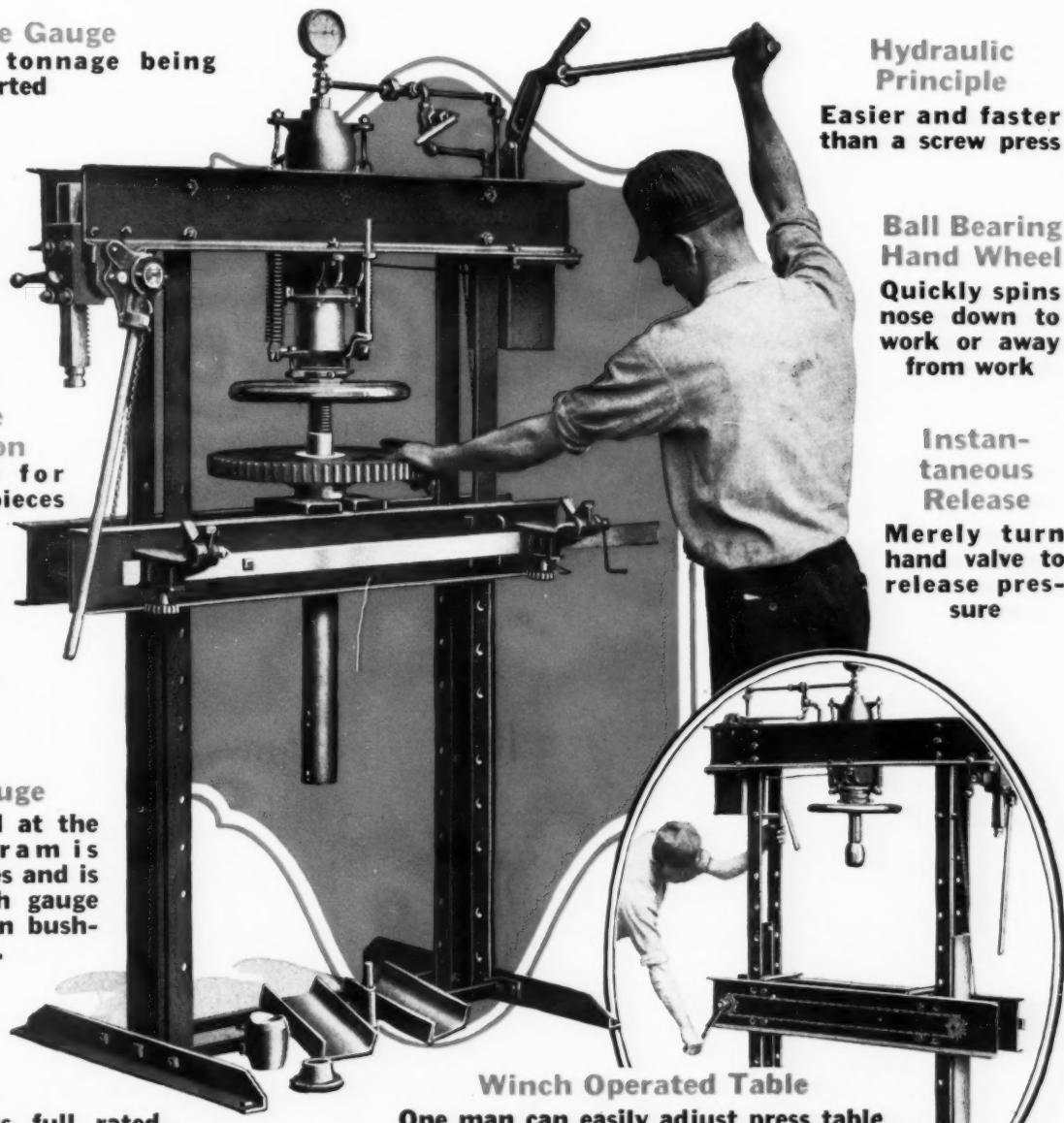
3-Ton Arbor Press
Takes care of the entire range of starter and generator work and other work requiring sensitive press

Open Side Construction
Can be used for straightening pieces of any length

Test Centers
Attached to press table. Convenient for straightening work

Depth Gauge
The vertical rod at the front of the ram is marked in inches and is used as a depth gauge when pressing in bushings, etc.

Tremendous Strength
You need never fear to operate press to its full rated capacity



This is the Manley 30-Ton Hydraulic Press.
Catalog No. 29-49

Complete as illustrated \$175.

Allowance of \$25 for Rack and Pinion Press and \$15 for Test Centers if these attachments not required —making price of plain Press, without Arbor Press or Test Centers, \$135.

MANLEY MFG. CO.,

YORK, PA.

[*Buick*]

One indication of the value of the Buick franchise is the prestige every Buick dealer enjoys in his community. This esteem from people not connected with the industry is a definite asset to the dealer in building a successful business.

*Those who desire the Buick franchise
.. should have their names on file ..*

WHEN BETTER AUTOMOBILES ARE BUILT
BUICK WILL BUILD THEM



[*Buick*]